

Background: On October 18, 2007, new requirements became effective for stationary diesel-fueled internal combustion engines used in agricultural service. These requirements are included in the Air Toxic Control Measure (ATCM) approved by the California Air Resources Board (ARB) under Section 93115 through 93115.15 of the California Code of Regulations to reduce public exposure to emissions of diesel particulate exhaust. The ATCM establishes a deadline of December 31, 2010, after which it prohibits the use of engines built before 1988; these engines are referred to as Tier 0 engines because there were no emissions performance standards in effect when they were manufactured. Engines built after that date have had to meet increasingly stringent performance standards, and are designated by performance Tier. Under the ATCM, engines in Tiers 1, 2, and 3 have compliance deadlines beginning in 2014.

Unlike other similar rules for diesel engines, this ATCM does not include an exemption for engines that are used infrequently, although there are exemptions for engines that are remotely located, and for wind machines. In Northern Sonoma, there are a large number of engines that are used less than 100 hours per year, especially for frost protection, and many of these engines would be prohibited after the end of 2010.

Section 39666 of the California Health and Safety Code requires local air districts to implement and enforce an ATCM adopted by the ARB, unless the air district adopts an equivalent regulation. Under this authority, District staff is proposing Regulation 3, Rule 8, which provides an alternative compliance path for engines used fewer than 100 hours per year. In order to be deemed equivalent to the ARB regulation, the proposed District regulation provides less time for non-compliant engines to be replaced once they are identified, and the District has developed an incentive program to replace Tier 0 engines early. District staff worked for two years with staff of the ARB to develop this combined regulatory and incentive package that ARB agrees is equivalent.

Specifically, Regulation 3, Rule 8, will replace ARB's ATCM within Northern Sonoma County. The District's regulation excludes engines used less than 20 hours per year, and it provides a compliance extension until December 31, 2020 for Tier 0 and Tier 1 engines, and until 2025 for Tier 2 engines. In order to qualify for the exclusion or extension, an engine must have a valid operating permit with the District. The Board approved the permit requirement on February 26, 2008 (Resolution # 08-0156). Under the District's regulation, any unpermitted or otherwise non-compliant engines that are identified by the District must be replaced with a compliant engine within six months. This is half of the time allowed under ARB's ATCM.

The District is also proposing for the Board's approval today an Agricultural Assistance Program. As described in that item, the Assistance Program will provide financial assistance for the early replacement of diesel engines subject to the Regulation 3, Rule 8. The Regulation and the Assistance Program are designed to work in tandem to ensure that, overall, equivalent protection from diesel particulate exhaust is afforded to the residents of Northern Sonoma, while providing economic assistance for the growers who rely on these engines.

Recommended Action:

Approve Resolution adopting proposed Regulation 3, Rule 8, Air Toxic Control Measure for Stationary Compression Ignition Engines.

Attachments: Resolution; Staff Report

On File With Clerk: Proposed Rule Changes for Regulation 3, Rule 8, Air Toxic Control Measure for Stationary Compression Ignition Engines

Resolution No.

**County of Sonoma
Santa Rosa, CA 95403**

Date: 11/3/2009

Resolution Of The Board Of Directors Of The Northern Sonoma County Air Pollution Control District, State Of California, Adopting Regulation 3, Rule 8.

Whereas, the Northern Sonoma County Air Pollution Control District (hereinafter referred to as "the District") is under mandate by state and federal law to carry out tasks and duties to maintain air quality; and

Whereas, authority to adopt, amend, or repeal rules and regulations is provided by Sections 39666, 40000, 40001, 40440, 40441, 40463, 40702, and 40725 through 40728 of the California Health and Safety Code; and

Whereas, the record demonstrates that a need exists to amend regulations in order to meet California Air Resources Board (CARB) regulations; and

Whereas, Regulation 3, Rule 8 of the District, as proposed for adoption, is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

Whereas, the adoption of Regulation 3, Rule 8 of the District, as proposed for adoption, is in harmony with, and not in conflict with nor contradictory to, existing statutes, court decisions, or state and federal regulations; and

Whereas, public notice was made and distributed to affected parties, and public and industry workshops were held on March 25, 2009 and September 29, 2009, and public and industry comments have been received, considered and incorporated where necessary and appropriate; and

Whereas, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Section 40725; and

Whereas, documentation describing the proposed Regulation 3, Rule 8 of the District and its impacts has for 30 days in advance of the public hearing been available for public view and comment; and

Whereas, the Board of Directors of the District has held a public hearing in accordance with all provisions of the law.

Now, Therefore, Be It Resolved, that the Board of Directors of the Northern Sonoma County Air Pollution Control District hereby finds, determines, declares, and orders as follows:

Resolution #

Date: 11/3/2009

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1. Each of the foregoing recitals is true and correct.

2. Adoption of Regulation 3, Rule 8 as set forth in Exhibit "A," attached hereto and incorporated herein by reference, is hereby adopted and shall be effective immediately upon adoption.

3. The Clerk of the Board is hereby authorized and directed to deliver a certified copy of Regulation 3, Rule 8 to the District within seven days of adoption.

Directors:

Brown: Kerns: Zane: Carrillo: Kelley:

Ayes: Noes: Absent: Abstain:

So Ordered.

**NORTHERN SONOMA COUNTY
AIR POLLUTION CONTROL DISTRICT**

**Regulation 3, Rule 8:
Air Toxic Control Measure
for Stationary Compression Ignition Engines**

Staff Report

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BACKGROUND

Statement of Purpose:

The District is proposing Regulation 3, Rule 8, Air Toxic Control Measure (ATCM) for Stationary Compression Ignition (CI) Engines as a local regulation that is equivalent to the ATCM adopted by the California Air Resources Board (ARB) for the same category of sources. Adopting an equivalent local regulation puts the ARB requirements in a format that is more familiar to local businesses, but more importantly, it allows the District to make some changes to the regulation to better address local needs. The proposed Rule is specifically intended to address local compliance issues faced by a sub-group of affected sources, namely: stationary agricultural engines, or water pumps.

Authorities and Mandates:

The ATCM was originally adopted by ARB pursuant to Section 39660, *et seq.*, of the California Health and Safety Code (H&SC). Section 39660 establishes a program for the ARB, along with the Office of Environmental Health Hazard Assessment (OEHHA), to review the health effects of pollutants emitted into the air, to identify those that are most harmful as Toxic Air Contaminants (TACs), and to establish risk reduction plans and regulations to reduce public exposure to TACs they have identified. The particulate fraction of diesel exhaust was identified as a TAC in 1998, and ARB adopted a Risk Reduction Plan in 2000 that identified the main sources of diesel particulate matter and set out a schedule for regulating them.

Under Section 39666 of the H&SC, local air districts are charged with implementing and enforcing ATCMs that affect stationary sources. The same section allows districts to adopt equivalent or more stringent local rules for the same sources. The District has implemented and enforced the ATCM adopted by ARB since it became effective. When the ATCM was amended to include stationary agricultural engines, District staff believed it did not adequately address local concerns and began working with ARB and affected growers to identify an acceptable equivalent local rule. The proposed Regulation 3, Rule 8, is the result of that effort.

Existing Local Program for Sources of Toxic Air Contaminants:

There are three main regulatory elements in the District's program for addressing toxic air emissions, as well as a general permitting requirement.

District Regulations currently require all sources of TACs to hold a valid operating permit with the District, unless the source is covered by a specific exemption. The permit review is the gateway to implementation of the regulatory program, however the regulations apply whether or not a source has a valid permit. Before the identification of diesel particulate as a TAC, most engines were not required to have permits, because they were either emergency standby engines (used infrequently and therefore with few emissions) or they were in agricultural service. Until 2003, agricultural engines were excluded from local district permits under state law. Following legislative change in that area, and the identification by ARB that both emergency standby engines and agricultural engines were potentially significant sources of air pollution, the District Board approved a change in Regulation 1, Rule 200, that brought both categories into the permit program.

New sources of toxic air contaminants are subject to District Regulation 1, Rule 225. Pursuant to this Rule, the District maintains a list of TACs and de minimis emission rates for each pollutant based on its toxicity. Any source emitting above the de minimis threshold must be equipped with Reasonable Control Technology (RCT), which is essentially the generally accepted standard for good operation and is determined through a district review of emissions control for that category of source. Regulation 1, Rule 225 requires that an assessment be done of the potential health risks posed by the toxic emissions from the source. If the risk exceeds a health-based action threshold, a greater degree of emissions control is required, specifically, Best Available Control Technology for Toxics (TBACT). The Rule requires further operational changes at higher action thresholds, and prohibits the construction or operation of a source that poses impacts at an unacceptable level, specified in the Rule.

Existing sources of toxic air contaminants are subject to a different portion of Regulation 1, Rule 225. This portion of the Rule implements the statewide requirements of the Air Toxics Hot Spots Information and Assessment Act, including the Risk Reduction Audit and Plan provisions, all of which are codified under H&SC Section 44300 *et seq.* Consistent with ARB guidelines, existing sources of TACs are required to submit inventories of their emissions. The District conducts a prioritization assessment of those emissions and, depending on the resulting prioritization score, the facility may be required to conduct a Health Risk Assessment. The Rule has established action levels for public notification of risks as well as the development and implementation of risk reduction plans.

H&SC Section 44323 authorizes the District to prepare an “industrywide” emissions inventory and health risk assessment for a category of facility if the District determines it meets the following criteria: (1) all facilities in the group fall within a single Standard Industrial Classification Code; (2) individual compliance would pose severe economic hardship on the majority of facilities in the group; (3) the majority of the group is composed of small businesses; and (4) releases from individual facilities in the group can easily and generically be characterized. District staff has determined that stationary agricultural engines in the District meet these criteria, and staff is preparing an industrywide inventory and health risk assessment for this group. For this reason, individual operators are not required to submit reports under Regulation 1, Rule 225. Based on preliminary analysis, staff expects the industrywide health risk assessment will confirm that compliance with proposed Regulation 3, Rule 8 satisfies the risk reduction requirements of Regulation 1, Rule 225, as well as the statewide program.

STATE REGULATION

Diesel Particulate Pollution:

In 1998, ARB identified the particulate fraction in diesel exhaust as a TAC based on its potential to cause or contribute to cancer, heart and lung disease, poor pregnancy outcomes, premature death, and other health problems. Diesel particulate matter has an associated unit risk value that is relatively potent. This means that in most areas, emissions of diesel exhaust account for well over half of the environmentally-caused cases of cancer and other health effects. ARB estimated the number of premature deaths associated with exposure to diesel particulate to be 3,500 statewide in 2005.

In addition to the health problems specifically attributed to diesel particulate, studies have shown that combustion-related pollutants, including diesel particulate, adversely affect lung growth and lung function in children. The Southern California Children's Health Study, conducted primarily by researchers at the University of Southern California, is a longitudinal study that enrolled 10,000 children over a 10 year period and examined how exposure to air contaminants affected their pulmonary health over time. In 2004, the New England Journal of Medicine published a comprehensive report of the study's results, which conclusively showed measurable impacts of air pollution on children's lung tissue. Specifically, the study found that (1) children exposed to higher levels of combustion-related pollutants had lungs that developed more slowly than socio-economically matched children with lower exposure, (2) exposed children has smaller lungs and poorer lung function, (3) exposed children missed more school days, and (4) the lungs of children who moved from a high-exposure area to a low-exposure area in the course of the study resumed a more normal growth rate, but never recovered the lost lung function.

For all of these reasons, ARB has set in place an aggressive program to reduce exposure to diesel particulate exhaust (see below). The positive news for residents of the District is the ambient concentration of diesel particulate in Northern Sonoma is relatively low, compared with most of California. Trucks and other diesel powered vehicles are responsible for almost all of the emissions, so risks are highest near Highway 101, and other major roadways. Stationary sources make only a minor contribution to inventory of diesel emissions.

Diesel Risk Reduction Program:

ARB adopted its Diesel Risk Reduction Plan in October of 2000. The Plan sets out the basis for regulating diesel particulate exhaust from internal combustion engines in all sectors of the economy in California. This includes mobile engines, off-road engines, portable engines, and stationary engines. Mobile engines, including diesel engines in motorcycles, passenger vehicles, marine vessels, buses, and trucks, account for about 27% of statewide emissions of diesel particulate. Off-road equipment, like bulldozers, excavators, and drilling rigs, is responsible for about 66% of statewide diesel emissions. Portable generators and other portable equipment contribute about 5% of the total, and engines in stationary service are responsible for about 2%. Stationary diesel engines include emergency standby generators and engines considered "prime" by ARB, which means they are used in other than standby mode. ARB estimates that 70% of the prime engines in California are used in agricultural operations, primarily for pumping water.

In 2000, ARB estimated the total emissions from all diesel categories to be about 28,000 tons per year. The Diesel Risk Reduction Plan aims to cut that by 85% by 2020. This is to be accomplished through stringent standards for new engines, regulations to reduce emissions from existing engines in each source category, and through mandated reformulation of diesel fuel, as well as the development of alternative fuel infrastructure and technology.

New diesel engines today (currently certified at Tier 3) are much cleaner than engines built before emissions performance standards first went into place (also known as Tier 0 engines). The difference is so dramatic that if you placed the engines side by side, you would see the characteristic dark smoke from the old engine, but the new engine would not have any visible exhaust other than the visual distortion from the heat. Tier 4 engines are expected in the 2014 to

2015 timeframe, and these will be even cleaner. In addition to advances in engine technology, there is emissions control equipment that can be added on to the engine to remove the particles from the exhaust. These include passive and active filters, oxidizers, and selective catalytic reduction. Some existing engines may be able to meet the ARB performance standards with add-on controls alone, but those controls typically do not work on the oldest engines. Others will need to be replaced. Engines in trucks or expensive off-road equipment can often be replaced without replacing the entire vehicle or piece of equipment (repowering), depending on the space available in the engine compartment and the size of the replacement engine. In the case of an agricultural engine used for pumping water, however, replacement of the unit is generally needed to comply with the applicable standard.

Summary of State Regulation:

ARB initially adopted its ATCM for Stationary CI Engines in 2004, with emissions performance standards for prime engines and emergency standby engines, as well as fuel restrictions and other operational limits, and reporting, testing, and monitoring requirements. The initial regulation exempted engines in agricultural use.

There is no single emissions standard. Standards differ depending on the size of the engine, whether it is prime or standby, whether it is a new purchase or an existing (or “in-use”) engine, and how closely located the engine is to sensitive receptors. There are a number of exclusions, exemptions, and special provisions, especially for generators that may be used to provide demand relief or load shedding during stage 3 power alerts. Very briefly, other than provisions for agricultural engines, the ARB ATCM requires:

- All diesel engines must use ARB certified fuel.
- Engines that are located near schools may be subject to restricted hours of operation.
- Emergency standby engines larger than 50 bhp are subject to limits on their hours of routine operation, but have unlimited emergency use, and must meet the following particulate emission standards-
 - New engines must emit less than 0.15 g/bhp-hr and may only operate up to 50 hours per year unless they emit less than 0.01 g/bhp-hr.
 - Existing engines do not have a minimum performance standard, however their routine hours of operation are restricted based on their emission rate. Engine operation is restricted as follows: (1) emitting more than 0.4 g/bhp-hr may only operate 20 hours per year; (2) emitting between 0.4 and 0.15 g/bhp-hr may only operate 30 hours per year; (3) emitting between 0.15 and 0.01 g/bhp-hr may operate 50 hours per year; and emitting less than 0.01 g/bhp-hr may operate up to 100 hours per year.
 - All emergency standby engines must meet the emission standards for other specified pollutants. Those standards are set to be equal to the certification levels of engines that meet the applicable particulate standards.
 - Use of emergency standby engines for demand relief or load shedding is limited based on the emission rate of the engine and other specified criteria.
- Prime engines larger than 50 bhp must meet the following emission standards-
 - New prime engines must emit less than 0.01 g/bhp-hr.

- Existing prime engines have three compliance options. For the first two options, engines must emit less than 0.01 g/bhp-hr, **or** must reduce emissions from baseline by at least 85%; the deadlines are phased in over a three-year period between 2007 and 2009, depending on the age of the original engines. The third option is a two-stage compliance path, where the engines must reduce emissions by at least 30% from baseline by 2006, and then the engines must emit less than 0.01 g/bhp-hr by 2011.
- All prime engines must meet emission standards for other specified pollutants. Those standards are set to be equal to the certification levels of engines that meet the applicable particulate standards, or restrict the amount of increase in other pollutants resulting from the use of add-on particulate emissions controls.
- Engines rated at less than 50 bhp are subject to a prohibition against the sale or lease of an engine that does not meet the current Tier standards for particulate and other specified pollutants.
- All engines are subject to recordkeeping and reporting requirements.
 - Owners or operators of engines larger than 50 bhp must maintain specified operational records and must submit the information to the local air district on an annual basis.
 - Sellers of engines smaller than 50 bhp must keep specified records and submit information to ARB on an annual basis.
 - Owners or operators of otherwise exempt engines must maintain specified records and provide them to the APCO or the Executive Officer of the ARB upon request.
- All engines larger than 50 bhp must have non-resettable hour meters with minimum capacity.

Effective October 17, 2007, ARB amended the ATCM to include requirements for engines in agricultural service. These requirements are summarized below:

- New agricultural engines larger than 50 bhp, except for generator sets, must meet particulate emissions standards based on the size of the engine, as follows:
 - New engines between 50 and 100 bhp must emit less than 0.3 g/bhp-hr.
 - New engines between 100 and 175 bhp must emit less than 0.22 g/bhp-hr.
 - New engines larger than 175 bhp must emit less than 0.15 g/bhp-hr.
- New generator sets larger than 50 bhp must emit less than 0.015 g/bhp-hr.
- Existing uncertified (Tier 0) agricultural engines larger than 50 bhp, except for generator sets, must meet particulate emissions standards based on the size of the engine, as follows:
 - Existing engines between 50 and 100 bhp must emit less than 0.3 g/bhp-hr after 2011.
 - Existing engines between 100 and 175 bhp must emit less than 0.22 g/bhp-hr after 2011.
 - Existing engines between 175 and 750 bhp must emit less than 0.15 g/bhp-hr after 2010.
 - Existing engines larger than 750 bhp must emit less than 0.075 g/bhp-hr after 2014.
- Existing uncertified (Tier 0) generator sets larger than 50 bhp must meet particulate emissions standards based on the size of the engine, as follows:

- Existing generator sets between 50 and 75 bhp must emit less than 0.02 g/bhp-hr after 2015.
- Existing generator sets between 75 and 175 bhp must emit less than 0.01 g/bhp-hr after 2015.
- Existing generator sets between 175 and 750 bhp must emit less than 0.15 g/bhp-hr after 2010.
- Existing generator sets larger than 750 bhp must emit less than 0.075 g/bhp-hr after 2014.
- Existing Tier 1 and Tier 2 certified agricultural engines larger than 50 bhp, including generator sets, must meet particulate emissions standards based on the size of the engine, as follows:
 - Existing engines between 50 and 75 bhp must emit less than 0.02 g/bhp-hr after 2015.
 - Existing engines between 75 and 175 bhp must emit less than 0.01 g/bhp-hr after 2015.
 - Existing engines between 175 and 750 bhp must emit less than 0.01 g/bhp-hr after 2014.
 - Existing engines larger than 750 bhp must emit less than 0.075 g/bhp-hr after 2014.
 - An existing Tier 1 or Tier 2 engine may operate until 12 years from the date of purchase or until the compliance dates provided above, whichever is later.
- All agricultural engines must meet emission standards for other specified pollutants. Those standards are set to be equal to the certification levels of engines that meet the applicable particulate standards, or restrict the amount of increase in other pollutants resulting from the use of add-on particulate emissions controls.
- The Executive Officer of the ARB may extend the compliance dates for any of the above categories of agricultural engine for up to one year under specified circumstances.
- A local air district may take the following actions:
 - Extend the compliance dates for existing Tier 0 agricultural engines or generator sets for up to four years if the district determines, on a site-specific basis through an assessment of health risk posed by the engine, that the standards in the ATCM are not stringent enough, and the district requires installation of an electric motor or a Tier 4 engine.
 - Approve a request for a compliance extension for up to two years for any engine with a binding agreement for electrification in that time period.
 - Establish more stringent emission limits, compliance dates, or other requirements.
- All agricultural engines must have valid registration or permits with the local air district, and must provide specified information to the district.
- All agricultural engines are subject to fees for registration or permitting, and for implementation of the ATCM, as required by the local district.
- Certain agricultural engines are required to have non-resettable hour meters.

PROPOSED LOCAL CHANGES

The District has been implementing the ARB's ATCM since it was first approved in 2004. As required by the amendments of October, 2007, the District Board approved changes to the District's permitting rule (Regulation 1, Rule 200) in February of 2008, to require permits for agricultural engines. At that time, staff apprised the Board of concerns about how some of the provisions of the new ATCM might affect local growers, and staff committed to work with the growers and with ARB to resolve those concerns.

During the development of the requirements for agricultural engines, local air districts commented to ARB staff that an exemption was needed for infrequently used equipment. ARB staff believed that other exemptions (for remotely located engines and for wind machines) would address the concern. Unfortunately, in Northern Sonoma, there are a significant number of engines used fewer than 100 hours per year that are neither remotely located, nor are they wind machines. Local growers confirmed that the cost of replacing these low-use engines would be a hardship in many cases.

Over the two years since the ARB's ATCM became effective for agricultural engines, the District negotiated with ARB staff on the parameters for a possible exemption or compliance extension that the District could adopt as a local rule. ARB staff maintained any local rule must be equivalent, as required by law. Ultimately, District staff proposed a combination rule and incentive program that includes a very limited exemption for the least used engines, a compliance extension for low-use engines that could not be exempted, shorter time periods for certain engines to come into compliance, and an incentive program to secure early compliance from some engines. These provisions are embodied in the proposed Regulation 3, Rule 8, and in the proposed Agricultural Assistance Program, Phase I. ARB agreed that the combined package would be equivalent.

Very Low-Use Exemption:

Proposed Regulation 3, Rule 8, would exempt from emissions control requirements any agricultural engine that operates fewer than 20 hours per year. This is consistent with the provisions for emergency standby engines. The owner or operator of the exempt engine is required to maintain records of use to substantiate the exempt status.

Alternative Compliance Plan for Low-Use Engines:

Under the proposed Regulation 3, Rule 8, the Air Pollution Control Officer may approve a request from an owner or operator of an agricultural engine for a low-use alternative compliance plan (low-use ACP). There are three criteria for an agricultural engine to be eligible for the low-use ACP:

- The engine must have a valid operating permit with the District;
- The engine must operate fewer than 100 hours per year; and
- The engine cannot be located within 200 meters (about one quarter mile) of a residential area,¹ school, or hospital.

¹ "Residential area" excludes the owner's residence.

When the engine is covered by an approved low-use ACP, the engine may continue to operate for an extended period until it is required to comply with the emissions standards of the ATCM. The alternative deadlines are based on the engine Tier, as follows:

- Tier 0 and Tier 1 engines may continue to operate for up to 100 hours per year until December 31, 2020.
- Tier 2 engines may continue to operate for up to 100 hours per year until 2025.

In addition to these main requirements, engines subject to a low-use ACP must be equipped with non-resettable hour meters and the owner or operator of the engine must record the use and report it to the District each year at the time of permit renewal.

Shortened Compliance Term for Engines No Longer Eligible for a Low-Use ACP:

ARB's ATCM provides a period of up to eighteen months for an agricultural engine that loses its exempt status to come into compliance with the otherwise applicable emissions standards. Proposed Regulation 3, Rule 8 shortens that period for engines that no longer can meet the terms of their approved low-use ACP, and allows six months to remove the engine from service or replace it with an engine that complies with the otherwise applicable standards.

INCENTIVES FOR EARLY COMPLIANCE

There are two ways in which the District is proposing to incentivize early compliance with emissions standards. The primary incentive program is the Agricultural Assistance Program, which is being proposed in tandem with Regulation 3, Rule 8. The other incentive for early compliance is through permit fee waiver.

Agricultural Assistance Program:

The District is proposing to implement an Agricultural Assistance Program to provide financial incentives in the form of vouchers for the replacement of existing engines in agricultural service. Phase I Program Guidelines have been proposed for adoption by the Board concurrently with the proposed regulatory action, to run from November 3, 2009 (or upon Board approval) until December 31, 2009. Under Phase I, only certain engines are eligible for funding. In order to be eligible, an engine must meet the following criteria:

- The engine must be an uncertified, or Tier 0, engine.
- The engine must have a valid operating permit from the District.
- The engine must operate at least 20 hours per year.

During Phase I of the Program, the owner of an eligible engine may request a voucher from the District by completing a simplified application form that is designed to verify eligibility and to provide District staff with the information necessary to fund the engine replacement. Once the review is completed, the District will provide the owner with a voucher that may be redeemed when the qualifying replacement engine has been purchased and the old engine destroyed. The voucher reserves the funds.

Vouchers will be awarded in set amounts, depending on the type of replacement being requested. An engine being replaced with a qualifying diesel engine is eligible for \$5,000. If the

replacement is a qualifying propane engine, it is eligible for \$7,500, and electrification is eligible for \$10,000. These amounts may be less than the engine would qualify for under the District's Carl Moyer Program, however the Agricultural Assistance Program has fewer requirements and will accept engines that may not qualify for a standard Carl Moyer grant. For example, the terms for award of the incentive funds under the Agricultural Assistance Program are implemented and rendered enforceable through the operating permit, rather than through a separate contract.

Funds for the Agricultural Assistance Program will come primarily from a \$2 surcharge on motor vehicle registration approved by the Board in 2004. These funds must be used in accordance with guidance established by ARB, including certain criteria for determining the cost-effectiveness of an individual engine replacement project. The Phase I Program Guidelines provide a process for evaluating the projects; District staff conducted a preliminary analysis and expects most engines will meet the ARB guidance criteria. Vouchers for engines that do not meet the ARB's criteria will be provided from the District's Community Programs Fund, which was established by the Board in 1996 with penalties rendered for violations with District regulations.

Waiver of Permit Fees:

District Regulation 1, Rule 300, Fees, requires payment of specified fees for the evaluation, and administration any new permit, or any modification to an existing permit. Under the fee provisions of proposed Regulation 3, Rule 8, in addition to the required language in ARB's regulation, the District is proposing to waive permit fees for any engine that is replaced during Phase I of the Agricultural Assistance Program, and for any permitted engine that is replaced at least one year before the otherwise applicable compliance date. This proposal also has the effect of providing an amnesty period during Phase I of the Agricultural Assistance Program, during which engine owners who, in violation of the existing ATCM and of the District's general permitting rule, have not obtained operating permits for their engines.

COSTS AND IMPACTS OF PROPOSAL

Costs and Impacts of State Regulation:

In the initial statement of reasons for adopting the ATCM for Stationary CI Engines, ARB estimated that compliance with the regulation would cost between \$34 million and \$42 million over 22 years (2008-2029) statewide. ARB also estimated the regulation would reduce 440 tons of diesel particulate exhaust, 8,100 tons of NOx, and would reduce cancer cases associated with emissions from stationary diesel engines by 85%. Based on that record, ARB found that the costs of the regulation were justified.

Sources Affected by Proposed Local Changes:

There are 143 agricultural engines with valid operating permits in the District, and an unknown number operating without permits. The permitted engines are affected as follows:

- 16 engines operate fewer than 20 hours per year and will be exempted from control requirements.
- 39 engines operate fewer than 100 hours per year, and would qualify for a low-use ACP.

- 2 engines are located within 200 meters of a residential area, school, or hospital, and would not qualify for a low-use ACP.
- There are 52 Tier 0 engines that would be eligible under Phase I of the Agricultural Assistance Program.

Additional Costs and Impacts of Proposed Local Changes:

The local changes to the ATCM as proposed in Regulation 3, Rule 8 will not cause any additional costs of compliance for any of the affected engines. The District will lose some permit revenue due to the fee waiver. The proposed rule will avoid engine replacement costs for the 16 engines that would be exempted from requirements; replacement engines typically cost between \$10,000 and \$20,000, depending on size, and large engines can cost considerably more. The proposed rule would delay the cost of replacement for the 39 engines that qualify, if they choose to apply for low-use ACP. The proposed rule would also save engine owners the cost of a new or modified permit, if they choose to replace their engines early. The proposed Agricultural Assistance Program would save participating engine owners between roughly 30% and 50% of the cost of replacing their engines. Although the District will sustain costs implementing the incentive program, a portion of those costs is defrayed by the fraction of the motor vehicle surcharge that is available for administration of the program.

Based on the risk analysis performed by District staff, all of the engines that would be exempted or have their compliance dates deferred by the proposed regulation will pose a less-than-significant health risk. Further, engines with deferred compliance dates will be replaced with Tier 4 engines (not yet available) which will emit only one tenth of the particulate that the ARB rule allows for engines replaced at the earlier compliance date.

The District does not violate any federal or state ambient air quality standards (although formal redesignation is still being processed by ARB). Staff estimates the amount of excess smog-forming emissions (oxides of nitrogen) resulting from the proposed changes to be less than 7 tons per year if all qualifying engines request a low-use ACP, and none participate in the incentive program. These emissions will not affect the District's attainment or maintenance of any ambient air quality standard.

EQUIVALENCY TO STATE REGULATION

After reviewing the District's tandem proposals for Regulation 3, Rule 8 and the Agricultural Assistance Program, ARB staff agreed that, overall, the package provides early emission reductions and better emissions performance for some engines that, in total, is sufficient to compensate for emission reductions that will be forgone by delaying compliance for this subset of engines. ARB staff also agreed that the limitations set for exemption and for participation in the low-use ACP ensure that no significant health impacts will result from the compliance delay. On this basis, ARB staff found the combined proposals equivalent to the existing ATCM.

PUBLIC OUTREACH & COMMENTS RECEIVED

District staff met with affected agricultural engine owners several times in 2007 and 2008. Staff held formal workshops regarding the proposed regulation on March 25, 2009 and on September 30, 2009. A compliance advisory was mailed out to all current agricultural engine permit holders regarding the proposed rule and noticed in all three Northern Sonoma newspapers. Outreach was also coordinated with the Sonoma County Farm Bureau and the Sonoma County Winegrape Commission.

During the original outreach to agricultural engine users in late 2007 and early 2008, the main concern among agricultural engine owners was the lack of an exemption for frost protection and other low use applications such as occasional pumping during drought conditions. The extension of the compliance dates for low-use agricultural engines has received positive reaction from the agricultural community. No concerns or comments opposing the proposed regulation have been received.

EXHIBIT "A"

REGULATION 3 - RULE 8

RULE 8-100 - TITLE

AIRBORNE TOXIC CONTROL MEASURE FOR
STATIONARY COMPRESSION IGNITION (CI) ENGINES

This regulation is adopted pursuant to Section 39666 of the California Health and Safety Code, to implement the provisions of Sections 93115 through 93115.15 of Title 17 of the California Code of Regulations.

RULE 8-110 - Purpose.

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines.

RULE 8-120 - Applicability.

(a) Except as provided in section 130, this ATCM applies to any person who either sells a stationary CI engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in California, unless such engine is:

- (1) a portable CI engine,
- (2) a CI engine used to provide motive power,
- (3) an auxiliary CI engine used on a marine vessel, or
- (4) an agricultural wind machine as defined in section 140.

(b) Except as provided in sections 130 and 450, this ATCM applies to any person who owns or operates a stationary CI engine in California with a rated brake horsepower greater than 50 (>50 bhp).

RULE 8-130 - Exemptions.

(a) Agricultural Engines - emergency use only or remotely located: The in-use stationary diesel agricultural emission standard and other requirements of section 440(b) do not apply to agricultural emergency standby generator set engines equipped with nonresettable hour meters with a minimum display capability of 9,999 hours or remotely-located agricultural engines provided the owners or operators of such engines comply with the registration requirements of section 440(c) and (d) and the applicable recordkeeping and reporting requirements of section 510.

(b) Agricultural Engines - general: The requirements specified in sections 420, 430, and 510(a) do not apply to new or in-use stationary diesel-fueled CI engines used in agricultural operations.

(c) Agricultural Engines - very low use: The requirements of section 440(b) shall not apply to any in use stationary diesel-fueled engine used in agricultural operations for which the following conditions are met:

- 1 The engine operates no more than 20 hours cumulatively per year.
- 2 The engine shall be equipped with a nonresettable hour meter with a minimum display capability of 9,999 hours.
- 3 The engine is located more than 500 feet from a school at all times.

(d) Cetane Test Engines: The requirements specified in section 450 do not apply to single cylinder cetane test engines used exclusively to determine the cetane number of diesel fuels in accordance with American Society for Testing and Materials (ASTM) Standard D 613-03b, "Standard Test Method for Cetane Number of Diesel Fuel Oil," as modified on June 10, 2003, which is incorporated herein by reference.

(e) Low Risk Engines: The requirements specified in sections 420(b)(3) and 430(b)(1) 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.

(f) Testing and Training (U.S. DoD): The requirements in sections 410 and 430 do not apply to any stationary diesel-fueled CI engine used solely for the training and testing of United States Department of Defense (U.S. DoD) students or personnel of any U.S. military branch in the operation, maintenance, repair and rebuilding of engines when such training engines are required to be configured and designed similarly to counterpart engines used by the U.S. DoD, U.S. Military services or North Atlantic Treaty Organization (NATO) forces in combat, combat support, combat service support, tactical or relief operations used on land or at sea.

(g) Outer Continental Shelf: The requirements specified in sections 420 and 430 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.

(h) Emergency Engines at Nuclear Facilities: The requirements in section 420(b)(3) do not apply to any in-use stationary diesel-fueled CI engines for which all of the following criteria are met:

- (1) the engine is an emergency standby engine;
- (2) the engine is subject to the requirements of the U.S. Nuclear Regulatory Commission;
- (3) the engine is used solely for the safe shutdown and maintenance of a nuclear facility when normal power service fails or is lost; and
- (4) the engine undergoes maintenance and testing operations for no more than 200 hours cumulatively per calendar year.

(i) Request for Exemption for Low-Use Prime Engines Outside of School Boundaries: The district APCO may approve a Request for Exemption from the provisions of section 430(b)(1) for any in-use stationary diesel-fueled CI engine located beyond school boundaries, provided the approval is in writing, and the writing specifies all of the following conditions to be met by the owner or operator:

- (1) the engine is a prime engine;
- (2) the engine is located more than 500 feet from a school at all times;
- (3) the engine operates no more than 20 hours cumulatively per year. The district APCO may use a different number of hours for applying this exemption if the diesel-fueled CI engine is used solely to start a combustion gas turbine engine, provided the number of hours used for this exemption is justified by the district, on a case-by-case basis, with consideration of factors including, at a minimum, the operational requirements of a facility using a combustion gas turbine engine and the impacts of the emissions from the engine at any receptor location.

(j) Alternative Fueled Engines: The requirements in sections 420(b)(3), 430(b)(1), and 440(b)(1) through (3) do not apply to in-use dual-fueled diesel pilot CI engines that use an alternative fuel or an alternative diesel fuel.

(k) Landfill and Digester Gas Fueled Engines: The requirements in sections 410, 420(a)(3), 420(b)(3), 430(a)(1), 430(b)(1), 440(a)(1), 440(b)(1) through (3), and 450 do not apply to dual-fueled diesel pilot CI engines that use diesel fuel and digester gas or landfill gas.

(l) SCR-Controlled Engines: The requirements in sections 420(b)(3), 420(c)(2), 430(b)(1), and 440(b)(1) through (3) do not

apply to in-use stationary diesel-fueled CI engines that have selective catalytic reduction systems.

(m) Fire Pump Assemblies: The requirements of section 420(b)(3) do not apply to in-use emergency fire pump assemblies that are driven directly by stationary diesel-fueled CI engines and only operated the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 2002 edition, which is incorporated herein by reference.

(n) NASA Equipment: The requirements of sections 410, 420(a)(3), 420(b)(3), 430(a), and 430(b) 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 including launch, tracking, and landing sites, provided the District APCO 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.

(o) Request for Delay in Implementation for Remotely Located In-Use Prime Engines: Prior to January 1, 2011, the district APCO may approve a Request for Delay in Implementation from the provisions of 430(b)(1) until January 1, 2011, for any in-use stationary 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:

- (1) the engine is a prime engine, and
- (2) the engine is located more than one mile from any receptor location, and
- (3) the impacts of the emissions from the engine at any receptor location result in:
 - (A) a prioritization score of less than 1.0; and
 - (B) a maximum cancer risk of less than 1 in a million; and
 - (C) a maximum Hazard Index Value of less than 0.1.

(p) Engines at Boarding Schools: The operational restrictions in sections 420(a)(1) and 420(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.

(q) Stock Engines: The District may exempt any stock engine from the new stationary diesel-fueled engine emission standards in sections 420(a), 430(a), 440(a), and 450 provided the seller and the owner or operator demonstrate to the District's satisfaction that the following conditions are met:

- (1) *Seller*: Any stationary diesel-fueled engine greater than 50 bhp shall meet the following standards and conditions:
 - (A) The stationary diesel-fueled engine emission standards in sections 420(b), 430(b), or 440(b), or
 - (B) The Off-Road CI Engine Certification Standards (title 13, CCR, section 2423) immediately preceding the transition to new standards for an off-road CI engine of the same model year and maximum rated power, and
 - (C) The engine was delivered to California no more than twelve months immediately preceding the transition to new standards for an off-road CI engine of the same model year and maximum rated power, and
 - (D) The engine was sold no later than six months after the effective date of the new standards for an off-road CI engine of the same model year and maximum rated power,

(2) *Owner/operator*:

- (A) The date of acquisition of the stock engine is no later than six months from the date an emission standard applicable to new engines becomes more stringent than the emission standard to which the stock engine is certified.
- (B) The date the District determines the application is complete for an Authority to Construct permit is no later than six months after the date of acquisition of the stock engine.

(r) Specified Testing Engines: Upon the prior written approval of the APCO, the requirements of this ATCM do not apply to stationary CI engines used exclusively:

- (1) as engine test cells and test stands for testing burners, CI engines, or CI engine components, e.g., turbochargers;
- (2) for operation or performance testing of fuels, fuel additives, or emission control devices at research and development facilities; or
- (3) for maintenance, repair, or rebuild training at educational facilities.

(s) Technology Unavailable: If the Executive Officer or District finds, based on verifiable information from the engine manufacturer, distributor, or dealer, that current model year engines meeting the current emission standards are not available or not available in sufficient numbers or in a sufficient range of makes, models, and horsepower ratings, then the Executive Officer or the District may allow the sale, purchase, or installation of a new stock engine meeting the emission standards from the previous model year to meet the new stationary diesel-fueled engine emission standards pursuant to title 13 of the California Code of Regulations or 40 CFR part 89.

RULE 8-140 - Definitions.

(a) For purposes of this ATCM, 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) "**Agricultural Wind Machine**" means a stationary CI engine-powered fan used exclusively in agricultural operations to provide protection to crops during cold weather by mixing warmer atmospheric air with the colder air surrounding a crop.
- (3) "**Air Pollution Control Officer (APCO)**" means the person appointed pursuant to section 40750 of the Health and Safety Code, or his or her designated representative.
- (4) "**Alternative Fuel**" means natural gas, propane, ethanol, or methanol.
- (5) "**Alternative Diesel Fuel**" means any fuel used in a CI engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D 975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel and biodiesel blends that do not meet the definition of CARB diesel fuel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:
 - (A) the additive is supplied to the engine fuel by an on-board dosing mechanism, or
 - (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
 - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel

combination is mixed than required for a single fueling of a single engine.

- (6) "**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.
- (7) "**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.
- (8) "**California Air Resources Board (CARB) Diesel Fuel**" means any diesel fuel that meets the specifications of vehicular diesel fuel, as defined in title 13, CCR, sections 2281 and 2282.
- (9) "**Cancer Risk**" means the characterization of the probability of developing cancer from exposure to environmental chemical hazards, in accordance with the methodologies specified in "The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments," Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (10) "**Carbon Monoxide (CO)**" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (11) "**Certified Engine**" means a CI engine that is certified to meet the Tier 1, Tier 2, Tier 3, or Tier 4 Off-Road CI Certification Standards as specified in title 13, California Code of Regulations, section 2423.
- (12) "**Combustion Gas Turbine Engine**" means an internal combustion gas or liquid-fueled device consisting of compressor, combustor, and power turbine used to power an electrical generator.
- (13) "**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.

- (14) "**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.
- (15) "**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).
- (16) "**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.
- (17) "**Date of Initial Installation**" means one of the following, whichever is earlier:
 - (A) the date on which a new stationary diesel-fueled engine is placed at a location in order to be operated for the first time since delivery from the manufacturer or distributor, or,
 - (B) for the purposes of a Tier 1- or Tier 2-certified stationary diesel agricultural engine complying with section 440(b)(3) emission standards, one year from January 1 of the model year of such engine.
- (18) "**Demand Response Program (DRP)**" means a program for reducing electrical demand using an Interruptible Service Contract (ISC) or Rolling Blackout Reduction Program (RBRP).
- (19) "**Diesel Fuel**" means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid

hydrocarbons - organic compounds consisting exclusively of the elements carbon and hydrogen - that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.

- (20) "**Diesel-Fueled**" means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (21) "**Diesel Particulate Filter (DPF)**" means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.
- (22) "**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 section 530.
- (23) "**Digester Gas**" is any gas derived from anaerobic decomposition of organic matter.
- (24) "**Direct-Drive Emergency Standby Fire Pump Engines**" means engines directly coupled to pumps exclusively used in water-based fire protection systems.
- (25) "**District**" has the same meaning as defined in the California Health and Safety Code, Section 39025.
- (26) "**DRP Engine**" means an engine that is enrolled in a DRP.
- (27) "**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.
- (28) "**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.
- (29) "**Emergency Standby Engine**" means a stationary engine that meets the criteria specified in (A) and (B) and any combination of (C) or (D) or (E) below:
 - (A) is installed for the primary purpose of providing electrical power or mechanical work during an emergency

- use and is not the source of primary power at the facility; and
- (B) is operated to provide electrical power or mechanical work during an emergency use; and
 - (C) is operated under limited circumstances for maintenance and testing, emissions testing, or initial start-up testing, as specified in sections 420(a),(b), and (c); or
 - (D) is operated under limited circumstances in response to an impending outage, as specified in sections 420(a),(b), and (c); or
 - (E) is operated under limited circumstances under a DRP as specified in section 420(c).
- (30) "**Emergency Use**" means providing electrical power or mechanical work during any of the following events and subject to the following conditions:
- (A) the failure or loss of all or part of normal electrical power service or normal natural gas supply to the facility:
 1. 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
 2. which is demonstrated by the owner or operator to the district APCO'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:
 1. 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
 2. which is demonstrated by the owner or operator to the district APCO's satisfaction to have been beyond the reasonable control of the owner or operator;
 - (C) the pumping of water or sewage to prevent or mitigate a flood or sewage overflow;
 - (D) the pumping of water for fire suppression or protection;
 - (E) the powering of ALSF-1 and ALSF-2 airport runway lights under category II or III weather conditions;
 - (F) the pumping of water to maintain pressure in the water distribution system for the following reasons:
 1. a pipe break that substantially reduces water pressure; or
 2. high demand on the water supply system due to high use of water for fire suppression; or

3. the breakdown of electric-powered pumping equipment at sewage treatment facilities or water delivery facilities; or
- (G) the day-of-launch system checks and launch tracking performed (in parallel with grid power) by the United States Department of Defense at Command Destruct sites (also known as "CT" sites) that occur within the 24-hour time period associated with the scheduled time of the launch.
- (31) "**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.
- (32) "**End User**" means any person who purchases or leases a stationary diesel-fueled engine for operation in California. Persons purchasing engines for the sole purpose of resale are not considered "end users."
- (33) "**Enrolled**" means either of the following, whichever applies:
- (A) the ISC is in effect during the specified time period for an engine in an ISC; or
- (B) the date the engine is entered into the RBRP.
- (34) "**Executive Officer**" means the executive officer of the Air Resources Board, or his or her designated representative.
- (35) "**Facility**" means one or more contiguous properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, under common ownership on which engines operate.
- (36) "**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.
- (37) "**Generator Set**" means a CI engine coupled to a generator that is used as a source of electricity.

- (38) "**Hazard Index**" means the sum of individual acute or chronic hazard quotients for each substance affecting a particular toxicological endpoint, as determined in accordance with the requirements of "The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments," Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (39) "**HC**" means the sum of all hydrocarbon air pollutants.
- (40) "**Health Facility**" has the same meaning as defined in Section 1250 of the California Health and Safety Code.
- (41) "**In-Use**" means a CI engine that is not a "new" CI engine.
- (42) "**Initial Start-up Testing**" means operating the engine or supported equipment to ensure their proper performance either:
- (A) for the first time after installation of a stationary diesel-fueled CI engine at a facility, or
 - (B) for the first time after installation of emission control equipment on an in-use stationary diesel-fueled CI engine.
- (43) "**Interruptible Service Contract (ISC)**" means a contractual arrangement in which a utility distribution company provides lower energy costs to a nonresidential electrical customer in exchange for the ability to reduce or interrupt the customer's electrical service during a Stage 2 or Stage 3 alert, or during a transmission emergency.
- (44) "**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 include 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.

- (45) "**Landfill Gas**" means any gas derived through any biological process from the decomposition of waste buried within a waste disposal site.
- (46) "**Location**" means any single site at a facility.
- (47) "**Low-Use Alternative Compliance Plan (ACP)**" means the use of a District approved procedure to demonstrate compliance with low agricultural engine use.
- (48) "**Maintenance and Testing**" means operating an emergency standby CI engine to:
- (A) evaluate the ability of the engine or its supported equipment to perform during an emergency. "Supported Equipment" includes, but is not limited to, generators, pumps, transformers, switchgear, and breakers; or
 - (B) facilitate the training of personnel on emergency activities; or
 - (C) provide electric power for the facility when the utility distribution company takes its power distribution equipment offline to service that equipment for any reason that does not qualify as an emergency use; or
 - (D) provide additional hours of operation to perform testing on an engine that has experienced a breakdown or failure during maintenance. Upon air district approval, these additional hours of operation will not be counted in the maximum allowable annual hours of operation for the emergency standby CI engine that provided the electrical power.
- (49) "**Maximum Rated Power**" means the maximum brake kilowatt output of an engine as determined from any of the following, whichever is the greatest:
- (A) the manufacturer's sales and service literature,
 - (B) the nameplate of the unit, or
 - (C) if applicable, as shown in the application for certification of the engine.
- (50) "**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.
- (51) "**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:

1. 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;
 2. an engine for which a district-approved application for a district permit or engine registration for stationary sources was submitted to the District prior to January 1, 2005, even though the engine was installed after January 1, 2005;
 3. 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;
 4. an engine, or replacement for an engine, used in agricultural operations that is relocated within the same facility or to another facility under the same owner or operator for use in agricultural operations, unless the engine is sited where an engine is not currently located and has not been previously located.
 5. an engine installed at a facility prior to January 1, 2005, and relocated within the same facility after January 1, 2005.
 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.
 7. a greater than 50 bhp Tier 1- or Tier 2-certified stationary diesel agricultural engine installed after January 1, 2005, shall be considered a new engine subject to the requirements of section 440(a) until 12 years after the date of initial installation, at which time, it shall be considered an in-use engine subject to the requirements of section 440(b)(3).
- (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 + 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.

- (52) "**Nitrogen Oxides (NOx)**" 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.
- (53) "**Noncertified Engine**" means a CI engine that is not certified to Off-Road CI Certification Standards as specified in title 13, California Code of Regulations, section 2423.
- (54) "**Non-Methane Hydrocarbons (NMHC)**" means the sum of all hydrocarbon air pollutants except methane.
- (55) "**Outer Continental Shelf (OCS)**" shall have the meaning provided by section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. Section 1331 et seq.).
- (56) "**Owner or Operator**" means any person subject to the requirements of this ATCM, 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.
- (57) "**Particulate Matter (PM)**" 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.
- (58) "**Portable CI Engine**" means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another, except as provided in section 140(a)(72). Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. 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.

- (59) "**Prime CI Engine**" means a stationary CI engine that is not an emergency standby CI engine.
- (60) "**Prioritization Score**" means the numeric value used to rank facilities in order of their potential to pose significant risk to human receptors. Prioritization scores are calculated per the process described in the "CAPCOA Air Toxics 'Hot Spots' Program Facility Prioritization Guidelines," California Air Pollution Control Officer's Association (CAPCOA), July 1990, which is incorporated herein by reference.
- (61) "**Rated Brake Horsepower (bhp)**" means:
- (A) for in-use engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine's configuration as of January 1, 2005:
 - 1. the manufacturer's sales and service literature;
 - 2. the nameplate of the engine; or
 - 3. if applicable, as shown in the application for certification of the engine;
 - (B) for new engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine's configuration upon the engine's initial installation at the facility:
 - 1. the manufacturer's sales and service literature;
 - 2. the nameplate of the engine; or
 - 3. if applicable, as shown in the application for certification of the engine.
- (62) "**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.
- (63) "**Reconstruction**" means the rebuilding of the engine or the replacement of engine parts, including pollution control devices, but excluding operating fluids; lubricants; and other consumables such as air filters, fuel filters, and glow plugs that are subject to regular replacement.
- (64) "**Remotely-Located Agricultural Engine**" means a stationary diesel-fueled CI engine used in agriculture that is:

- (A) located in a federal ambient air quality area that is designated as unclassifiable or attainment for all PM and ozone national ambient air quality standards (title 40, Code of Federal Regulations, section 81.305); and
 - (B) located more than one-half mile from any residential area, school, or hospital.
- (65) "**Residential Area**" means three or more permanent residences (i.e., homes) located anywhere outside the facility's property.
- (66) "**Rotating Outage**" means a controlled, involuntary curtailment of electrical power service to consumers as ordered by the Utility Distribution Company.
- (67) "**School**" or "**School Grounds**" 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 a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property.
- (68) "**Selective Catalytic Reduction (SCR) System**" means an emission control system that reduces NOx emissions through the catalytic reduction of NOx in diesel exhaust by injecting nitrogen-containing compounds into the exhaust stream, such as ammonia or urea.
- (69) "**Seller**" means any person who sells, leases, or offers for sale any stationary diesel-fueled engine directly to end users.
- (70) "**Stage 2 Alert**" means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 5 percent.
- (71) "**Stage 3 Alert**" means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 1.5 percent.
- (72) "**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.
- (73) "**Stationary Source**" means any building, structure, facility, or installation that emits any pollutant directly or as fugitive emissions. Building, structure, facility, or installation include 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.
- (74) "**Stock Engine**" means a certified CI engine that has never been placed in service and is part of a supply of engines offered for sale, rent, or lease by a person or firm who offers for sale, rent, or lease engines and related equipment for profit.
- (75) "**Transmission Constrained Area**" means the specific location that is subject to localized operating reserve

deficiencies due to the failure of the normal electrical power distribution system.

- (76) "**Transmission Emergency**" means an official forecast or declaration by the California Independent System Operator that the available electrical power transmission capacity to a transmission constrained area is insufficient and may result in an uncontrolled local grid collapse in the transmission constrained area.
- (77) "**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.
- (78) "**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 NOx from in-use diesel engines using a particular emission control strategy.
- (79) "**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."

RULE 8-200 - PERMITS

(a) *Permitting Requirements - General:* No stationary diesel-fueled CI engine shall operate within the District unless it has a valid permit to operate pursuant to Regulation 1, Rule 200.

(b) *Permitting Requirements for Greater than 50 bhp Stationary Diesel-Fueled CI Agricultural Engines.* In order to comply with Regulation 1, Rule 200, and with the requirements of Section 93115.8 of Title 17 of the California Code of Regulations, the owner or operator of a stationary diesel-fueled CI agricultural engine greater than 50 hp shall apply for a permit to operate as follows:

- (1) *Permit Application.* Except as provided in section 120(a), the owner or operator of a greater than 50 bhp stationary diesel-fueled CI agricultural engine or engines shall submit the permitting information specified in section (a)(2) below to the District according to the following schedule:
 - (A) For each in-use stationary diesel-fueled CI agricultural engine, no later than March 1, 2008;
 - (B) For each new stationary diesel-fueled CI agricultural engine installed on or after March 1, 2008, no later than 90 days after the date of initial installation; and
 - (C) For each new stationary diesel-fueled CI agricultural engine installed on or after January 1, 2005, but before March 1, 2008, within 90 days after initial installation or the effective date of amendments adding section 95113.8(c) to the California Code of Regulations, whichever is later.
- (2) *Application Information.* An application for a permit shall include the following information:
 - (A) *Basic Application Information:* At minimum, the owner or operator shall submit the following information for each greater than 50 bhp stationary diesel-fueled CI agricultural engine:
 1. Date of registration application submittal;
 2. Name, title (as applicable), and signature of person submitting the registration application;
 3. Name, address, mailing address (if differs from address), and telephone number of the engine owner and of the operator, if the owner is not also the operator;
 4. Date of installation or anticipated installation;
 5. Year of manufacture or approximate age, if unable to determine year of manufacture;
 6. Make;
 7. Model;
 8. Serial number;
 9. Maximum rated brake horsepower;

10. Certification status with respect to Off-Road CI Engine Certification Standards (title 13, CCR, section 2423) (if available)
11. Estimated annual average operating hours;
12. Fuels Used;
13. Estimated annual average gallons of each fuel used, if alternative diesel fuels are used;
14. Location including, but not limited to, one of the following: latitude and longitude, universal trans meridian (UTM) coordinates, global positioning satellite data (GPS), address, town and nearest cross streets, parcel or plot number/designation, or other description that clearly identifies the location of the engine; and
15. For an engine located within one-quarter mile of (1,320 feet) of a residential area, school, or hospital:
 - a. Distance (in meters or feet) from engine to residential area, school, or hospital;
 - b. Direction from engine to residential area, school, or hospital;
 - c. Location of engine and residential area, school, or hospital including one or more of the following for each: latitude and longitude, universal trans meridian (UTM) coordinates, global positioning satellite data (GPS), address, town and nearest cross streets.

(B) *Additional Information:* Any additional information required to evaluate the section 130(a) exemption of an agricultural emergency standby generator set engine or a remotely-located agricultural engine from the requirements of section 440(b).

- (3) The owner or operator of a stationary diesel-fueled CI agricultural engine registered under section 200(a)(1) shall notify the District in writing no later than 14 days after any change of owner or operator, change in location, installation or commencement of an emissions control strategy, or replacement with an electric motor or noncompression ignition engine.
- (4) A District may provide stationary diesel-fueled CI agricultural engine owners and operators with alternatives to section 200(a)(1) through (3) requirements, provided the Executive Officer finds such alternatives to be equivalent to sections 93115.8(c)(1) through (3) of Title 17 of the California Code of Regulations.
- (5) Upon written request by the Executive Officer, an APCO shall provide to the Executive Officer a written report of information gathered under sections 200(a)(1) through (4).

RULE 8-300 - FEES

(a) *Fee Requirements - General:* Any owner or operator of any stationary diesel-fueled CI engine with a horsepower rating of 50 hp or greater shall pay all applicable fees pursuant to District Regulation 1, Rule 300.

(b) *Fee Requirements for Greater than 50 bhp Stationary Diesel-Fueled CI Agricultural Engine Owners or Operators:* The owner or operator of a greater than 50 bhp stationary diesel-fueled CI agricultural engine or engines shall pay any fees assessed by the District for the purpose of recovering the District's cost of implementing and enforcing requirements of section 440, as well as the requirements of section 200(b) of this rule.

(c) *Fee Waiver for Specified Agricultural Engines:* The Air Pollution Control Officer may waive the application fee specified under Regulation 1, Rule 300.5.1 through 300.5.4 for agricultural engines under the following conditions:

- (1) An engine owner has submitted an application for an Authority to Construct for a new engine that has been approved by the District for a voucher for the replacement of an existing, permitted engine under the Agricultural Assistance Program; or
- (2) An engine owner has submitted an application for Authority to Construct for a new engine that meets all of the following conditions:
 - (A) The new engine will replace an existing, permitted engine that is subject to section 440 of this rule; and
 - (B) The replacement engine will be installed and operational at least 12 months before applicable compliance deadline for the original engine under section 440 of this rule; and
 - (C) The original engine being replaced will be removed from service at least 12 months before the applicable compliance deadline under section 440 of this rule and is not operated within the District.

RULE 8-400 - EMISSIONS CONTROL AND PERFORMANCE STANDARDS FOR STATIONARY DIESEL-FUELED CI ENGINES

RULE 8-410 - Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines That Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)

(a) As of January 1, 2006, except as provided for in sections 130 and 410(c), no owner or operator of a new stationary CI engine or an in-use prime stationary diesel-fueled CI engine shall fuel the engine with any fuel unless the fuel is one of the following:

- (1) CARB Diesel Fuel; or
- (2) an alternative diesel fuel that is:
 - (A) biodiesel;
 - (B) a biodiesel blend that does not meet the definition of CARB Diesel Fuel;
 - (C) a Fischer-Tropsch fuel; or
 - (D) an emulsion of water in diesel fuel; or
- (3) any alternative diesel fuel that is not identified in section 410(a)(2) above and meets the requirements of the Verification Procedure; or
- (4) an alternative fuel; or
- (5) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure; or
- (6) any combination of 410(a)(1) through (5) above.

(b) As of January 1, 2006, except as provided for in section 130, no owner or operator of an in-use emergency standby stationary diesel-fueled CI engine shall add to the engine or any fuel tank directly attached to the engine any fuel unless the fuel is one of the following:

- (1) CARB Diesel Fuel; or
- (2) an alternative diesel fuel that is:
 - (A) biodiesel;
 - (B) a biodiesel blend that does not meet the definition of CARB Diesel Fuel;
 - (C) a Fischer-Tropsch fuel; or
 - (D) an emulsion of water in diesel fuel; or
- (3) any alternative diesel fuel that is not identified in section 410(b)(2) above and meets the requirements of the Verification Procedure; or
- (4) an alternative fuel; or
- (5) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure; or
- (6) any combination of 410(b)(1) through (5) above.

(c) Upon the effective date of the amendments to add in-use stationary diesel-fueled agricultural engine requirements to the

ATCM, no owner or operator of an in-use stationary diesel-fueled CI engine used in agricultural operations shall fuel the engine with any fuel unless the fuel is one of the following:

- (1) CARB Diesel Fuel; or
- (2) an alternative diesel fuel that is:
 - (A) biodiesel;
 - (B) a biodiesel blend that does not meet the definition of CARB Diesel Fuel;
 - (C) a Fischer-Tropsch fuel; or
 - (D) an emulsion of water in diesel fuel; or
- (3) any alternative diesel fuel that is not identified in section 410(c)(2) above and meets the requirements of the Verification Procedure; or
- (4) an alternative fuel; or
- (5) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure; or
- (6) any combination of 410(c)(1) through (5) above.

RULE 8-420 - Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards.

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

- (1) *At-School and Near-School Provisions:* No owner or operator shall operate a new stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing, during the following periods:
 - (A) whenever there is a school sponsored activity, if the engine is located on school grounds, and
 - (B) between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Section 420(a)(1) does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
- (2) *Emergency Standby Engine Restrictions:* No owner or operator shall operate any new stationary emergency standby diesel-fueled CI engine (>50 bhp) in response to the notification of an impending rotating outage, unless all the following criteria are met:
 - (A) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
 - (B) 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
 - (C) the engine is located in a specific location that is subject to the rotating outage; and

- (D) 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
 - (E) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (3) *New Engines:* As of January 1, 2005, except as provided in section 130, 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 420(a)(3) (which are summarized in Table 1):
- (A) *Diesel PM Standard and Hours of Operating Requirements.*
 - 1. *General Requirements:* New stationary emergency standby diesel-fueled engines (>50 bhp) shall:
 - a. emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr; or
 - b. meet the diesel PM standard, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13 CCR, section 2423), in effect on the date of acquisition or submittal, as defined in section 140 whichever is more stringent; and
 - c. not operate more than 50 hours per year for maintenance and testing purposes, except as provided in 420(a)(3)(A)2. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with 420(a)(3).
 - 2. *District Determinations:* The District may allow a new emergency standby diesel-fueled CI engine (> 50 hp) to operate up to 100 hours per year for maintenance and testing purposes on a site-specific basis, provided the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.

Table 1: Summary of the Emission Standards and Operating Requirements for New Stationary Emergency Standby Diesel-Fueled CI Engines > 50 BHP (See section 420(a)(3))

| Diesel PM | | Other Pollutants | | |
|--------------------------------|---|--|---|---|
| Diesel PM Standards (g/bhp-hr) | Maximum Allowable Annual Hours of Operation for Engines Meeting Diesel PM Standards | | | HC, NOx, NMHC+NOx, and CO Standards (g/bhp-hr) |
| | Emergency Use | Non-Emergency Use | | |
| | | Emission Testing to show compliance ² | Maintenance & Testing (hours/year) | |
| $\leq 0.15^1$ | Not Limited by ATCM ³ | Not Limited by ATCM ³ | 50 | Off-Road CI Engine Certification Standards for an off-road engine of the model year and horsepower rating of the engine installed to meet the applicable PM standard, or Tier 1 standards. ⁴ |
| $\leq 0.01^1$ | Not Limited by ATCM ³ | Not Limited by ATCM ³ | 51 to 100 (Upon approval by the District) | |

1. Or off-road certification standard (title 13 CCR section 2423) for an off-road engine with the same maximum rated power, whichever is more stringent.

2. Emission testing limited to testing to show compliance with section 420(a)(3).

3. May be subject to emission or operational restrictions as defined in current applicable district rules, regulations, or policies.

4. The option to comply with the Tier 1 standards is available only if no off-road engine certification 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.

(B) *HC, NOx, NMHC + NOx, 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.

(C) *District Determinations:* The Air Pollution Control Officer:

1. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and
2. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and

3. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.
- (4) *New Direct-Drive Emergency Standby Fire Pump Engines:* Except as provided in section 130, 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 section 420(a)(3) or the emission standards defined in section 420(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 420(a)(3) or 420(a)(4).
- (A) *Standards and Hours of Operating Requirements.*
1. *General Requirements:* New direct-drive emergency standby diesel-fueled fire-pump engines (>50 bhp) shall, upon District approval of installation:
 - a. 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 or 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
 - b. 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," 2002 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 420(a)(4).
- (B) *District Determinations:* The Air Pollution Control Officer:

1. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and
2. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
3. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

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

- (1) *Operation During Rotating Outages:* 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:
 - (A) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
 - (B) 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
 - (C) the engine is located in a specific location that is subject to the rotating outage; and
 - (D) 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
 - (E) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (2) *At-School and Near-School Provisions:* No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing, during the following periods:
 - (A) whenever there is a school sponsored activity, if the engine is located on school grounds, and
 - (B) between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Section 420(b)(2) does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
- (3) Except as provided in section 130, no owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (> 50 hp) in California unless it meets, in accordance with the applicable compliance

schedules specified in sections 610 and 620, the following requirements (which are summarized in Table 2):

| Table 2: Summary of the Emission Standards and Operating Requirements for In-Use Stationary Emergency Standby Diesel-Fueled CI Engines > 50 BHP (See section 420(b)(3)) | | | | |
|--|--|--|---|---|
| <i>Diesel PM</i> | | | | <i>Other Pollutants</i> |
| <i>Diesel PM Standards (g/bhp-hr)</i> | <i>Maximum Allowable Annual Hours of Operation for Engines Meeting Diesel PM Standards</i> | | | <i>HC, NOx, NMHC+NOx, and CO Standards (g/bhp-hr)</i> |
| | <i>Emergency Use</i> | <i>Non-Emergency Use</i> | | |
| | | <i>Emission Testing to show compliance¹</i> | <i>Maintenance & Testing (hours/year)</i> | |
| >0.40 ² | Not Limited by ATCM ² | Not Limited by ATCM ² | 20 | Not limited by ATCM ² |
| >0.15 and <0.40 | Not Limited by ATCM ² | Not Limited by ATCM ² | 21 to 30 | For engines with emission control strategies not verified through the verification procedure: Off-Road CI Engine Certification Standards for an off-road engine of the model year and maximum rated power of the engine installed to meet the applicable PM standard, or Tier 1 standards. ³ |
| >0.01 and <0.15 | Not Limited by ATCM ² | Not Limited by ATCM ² | 31 to 50 (Upon approval by the District) | |
| ≤0.01 | Not Limited by ATCM ² | Not Limited by ATCM ² | 51 to 100 (Upon approval by the District) | OR Both (i) and (ii) must be met: (i) No increase in HC or NOx above 10% from baseline levels OR No increase in NMHC+NOx emissions above baseline levels (ii) No increase in CO above 10% from baseline levels |

1. Emission testing limited to testing to show compliance with section 420(b)(3).

2. May be subject to emission or operational restrictions as defined in current applicable district rules, regulations, or policies.

3. The option to comply with the Tier 1 standards is available only if no off-road engine certification 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.

(A) *Diesel PM Standard and Hours of Operation Limitations.*

1. *General Requirements:*

- a. 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 420(b)(3).

- b. 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 420(b)(3)(A)2. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with 420(b)(3).

2. *District Determinations:* The Air Pollution Control Officer 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:

- a. 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.
- b. 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.
- c. 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.

(B) *Additional Standards:* Owners or operators that choose to meet the diesel PM standards defined in section 420(b)(3)(A) with emission control strategies that are not verified through the Verification Procedure shall either:

1. Meet the applicable HC, NO_x, NMHC+NO_x, and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the in-use stationary emergency standby diesel-fueled CI engine, then the in-use stationary emergency standby diesel-fueled CI engine shall meet the Tier

- 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use stationary emergency standby diesel-fueled CI engine's model year; Or
2. 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.

(C) *District Determinations*: The Air Pollution Control Officer:

1. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and
2. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
3. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

(c) *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*.

(A) *At-School and Near-School Provisions*. No owner or operator shall operate a new stationary emergency standby diesel-fueled CI DRP engine for non-emergency use, including maintenance and testing, during the following periods:

1. whenever there is a school sponsored activity, if the engine is located on school grounds; and
2. between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds.

Section 420(c)(1)(A) does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.

(B) *Demand Response Programs - participation*: 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 the engine is operating pursuant to a DRP, or all of the following criteria are met:

1. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program

that authorizes operation of the engine in anticipation of a rotating outage; and

2. 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
3. the engine is in a specific location that is subject to the rotating outage in the control area; and
4. 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
5. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.

(C) *Demand Response Programs - operating requirements:*

Except as provided in section 130, 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:

1. *Diesel PM Standard and Hours of Operating Requirements.*
 - a. New DRP Engines enrolled in the RBRP on or after January 1, 2005, and prior to January 1, 2008, shall:
 - i. meet the requirements specified in 420(a)(3) and
 - ii. not operate more than 75 hours per year for RBRP operation.
 - b. New DRP Engines enrolled in the RBRP on or after January 1, 2008, shall:
 - i. meet the more stringent diesel PM standard of either 0.01 g/bhp-hr of diesel PM; or
 - ii. 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. comply with the limitations on the hours of operation for maintenance and testing as specified in 420(a)(3)(A)2.; and
 - iv. not operate more than 75 hours per year for RBRP operation.
 - c. New DRP Engines enrolled in an ISC on or after January 1, 2005, shall:

- i. meet the more stringent diesel PM standard of either 0.01 g/bhp-hr diesel PM; or
 - ii. 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
 - iii. comply with the limitations on the hours of operation for maintenance and testing as specified in 420(a)(3)(A)2.; and
 - iv. not operate more than 150 hours per year for ISC operation.
 - 2. *HC, NOx, NMHC + NOx, and CO standards:* No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>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 emergency standby diesel-fueled CI DRP engine, then the new stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI DRP engine's model year.
 - 3. *District Determinations:* The Air Pollution Control Officer:
 - a. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and
 - b. may establish more stringent maintenance and testing hour of operation standards on a site-specific basis; and
 - c. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.
- (2) *In-Use Emergency Standby Diesel-Fueled CI DRP Engine (> 50 bhp) Operating Requirements and Emission Standards.*
- (A) *At-School and Near-School Provisions:* No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine for non-emergency use, including maintenance and testing during the following periods:

1. whenever there is a school sponsored activity, if the engine is located on school grounds; and
 2. between 7:30 a.m. and 3:30 p.m. on days when school is in session, if the engine is located within 500 feet of school grounds. Section 420(c)(2)(A) does not apply if the engine emits no more than 0.01 g/bhp-hr of diesel PM.
- (B) *Demand Response Programs - participation:* 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 the engine is operating pursuant to a DRP, or all of the following criteria are met:
1. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
 2. 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
 3. the engine is in a specific location that is subject to the rotating outage in the control area; and
 4. 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
 5. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (C) *Demand Response Programs - operating requirements:* Except as provided in section 130, no owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (> 50 hp) unless it meets all of the following applicable operating requirements and emission standards:
1. *Diesel PM Standard and Hours of Operation Requirements.*
 - a. In-Use DRP Engines enrolled in the RBRP prior to January 1, 2005, shall:
 - i. meet the diesel PM standards and hour of operation limitations specified in 420(b)(3)(A) and (B); and
 - ii. not operate more than 75 hours per year for RBRP operation.

- b. In-Use DRP Engines enrolled in the RBRP on or after January 1, 2005, and prior to January 1, 2008, shall:
 - i. meet a diesel PM standard of 0.15 g/bhp-hr diesel PM; and
 - ii. meet the requirements specified in 420(b)(3)(A) for maintenance and testing hours of operation; and
 - iii. not operate more than 75 hours per year for RBRP operation.
 - c. In-Use DRP Engines enrolled in the RBRP on or after January 1, 2008, shall:
 - i. meet a diesel PM standard of 0.01 g/bhp-hr diesel PM; and
 - ii. meet the requirements specified in 420(b)(3)(A) for maintenance and testing hours of operation; and
 - iii. not operate more than 75 hours per year for RBRP operation.
 - d. In-Use DRP Engines enrolled in an ISC prior to January 1, 2005, shall as of January 1, 2006:
 - i. meet a diesel PM standard of 0.15 g/bhp-hr diesel PM; and
 - ii. meet the requirements specified in 420(b)(3)(A) for maintenance and testing hours of operation; and
 - iii. not operate more than 150 hours per year for ISC operation.
 - e. In-Use DRP Engines enrolled in an ISC on or after January 1, 2005, and prior to January 1, 2008, shall:
 - i. meet a diesel PM standard of 0.15 g/bhp-hr diesel PM; and
 - ii. meet the requirements specified in 420(b)(3)(A) for maintenance and testing hours of operation; and
 - iii. not operate more than 150 hours per year for ISC operation.
 - f. In-Use DRP Engines enrolled in an ISC on or after January 1, 2008, shall:
 - i. meet a diesel PM standard of 0.01 g/bhp-hr diesel PM; and
 - ii. meet the requirements specified in 420(b)(3)(A) for maintenance and testing hours of operation; and
 - iii. not operate more than 150 hours per year for ISC operation.
2. *Additional Standards:* Owners or operators that choose to meet the diesel PM standards and hour of

operation limits defined in section 420(c)(2)(C) with emission control strategies that are not verified through the Verification Procedure shall either:

- a. Meet the applicable HC, NO_x, NMHC+NO_x, and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and maximum rated power as the in-use stationary emergency standby diesel-fueled CI DRP engine, then the in-use stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use stationary emergency standby diesel-fueled CI DRP engine's model year; or
 - b. Not increase CO emission rates by more than 10% above baseline; and not increase HC or NO_x emission rates by more than 10% above baseline, or not increase the sum of NMHC and NO_x emission rates above baseline.
3. *District Determinations:* The Air Pollution Control Officer:
- a. may establish more stringent diesel PM, NMHC+NO_x, HC, NO_x, and CO emission rate standards; and
 - b. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
 - c. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

(3) *Requirements Applicable to DRP Engines after a DRP is Terminated:* After a DRP is terminated by either the Utility Distribution Company or the engine owner or operator, the DRP engine shall remain subject to the requirements of subsection 420(c) as if the DRP were still in effect.

RULE 8-430 - Stationary Prime Diesel-Fueled CI Engine (>50 bhp) Emission Standards.

(a) *New Stationary Prime Diesel-Fueled CI Engine (>50 bhp) Emission Standards.* As of January 1, 2005, except as provided in

section 130, 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):

| Table 3: Summary of the Emission Standards for New Stationary Prime Diesel-Fueled CI Engines >50 BHP (See section 430(a)(1)) | |
|--|--|
| <i>Diesel PM Standards (g/bhp-hr)</i> | <i>HC, NOx, NMHC+NOx, and CO Standards (g/bhp-hr)</i> |
| <p>Meet the more stringent of:</p> <p style="text-align: center;">$\leq 0.01^1$</p> <p style="text-align: center;">OR</p> <p>Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power</p> | <p>Off-Road CI Engine Certification Standard for an off-road engine of the model year and maximum rated power of the engine installed to meet the applicable PM standard, or Tier 1 standards.^{1,2}</p> |

1. May be subject to additional emission limitations as specified in current district rules, regulations, or policies governing distributed generation.
2. The option to comply with the Tier 1 standards is available only if no off-road engine certification 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 engine.

- (1) *Diesel PM Standard:* All new stationary prime diesel-fueled CI engines (> 50 bhp) shall emit diesel PM at a rate that is less than or equal to 0.01 grams diesel PM per brake-horsepower-hour (g/bhp-hr) or shall meet the diesel PM standard, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13, CCR, section 2423), in effect on the date of acquisition or submittal, as defined in section 140, whichever is more stringent.
- (2) *HC, NOx, NMHC+NOx, 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;

- (3) New stationary prime diesel-fueled CI engines that are used to provide electricity near the place of use (also known as "distributed generation") may be subject to additional emission limitations as specified in current district rules, policies, or regulations governing distributed generation;
- (4) The District may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate limits on a site-specific basis.

(b) *In-Use Stationary Prime Diesel-Fueled CI Engine (>50 bhp) Emission Standards.* Except as provided in section 130, no owner or operator shall operate an in-use stationary prime diesel-fueled CI engines (> 50 bhp) in California unless it meets the following requirements (which are summarized in Table 4):

- (1) *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:
 - (A) 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 sections 610 and 620;

| Table 4: Summary of the Emission Standards for In-Use Stationary Prime Diesel-Fueled CI Engines > 50 BHP (See section 430(b)(1)) | | |
|---|---|---|
| Diesel PM | | Other Pollutants |
| Diesel PM Standards (g/bhp-hr) | | HC, NO _x , NMHC+NO _x , and CO Standards (g/bhp-hr) |
| Applicability | Standard | |
| All off-road certified in-use prime engines | 85% reduction from baseline levels (Option 1) OR 0.01 g/bhp-hr (Option 2) | For engines with emission control strategies not verified through the verification procedure: Off-Road CI Engine Certification Standards for an off-road engine of the model year and maximum rated power of the engine installed to meet the applicable PM standard, or Tier 1 standards. ¹ |
| Only in-use prime engines NOT certified in accordance with the Off-Road Compression Ignition Standards | 85% reduction from baseline levels (Option 1) OR 0.01 g/bhp-hr (Option 2) OR [30% reduction from baseline levels AND 0.01 g/bhp-hr by no later than July 1, 2011] (Option 3) | OR Both (i) and (ii) must be met: (i) No increase in HC or NO _x emissions above 10% from baseline levels OR No increase in NMHC+NO _x emissions above baseline levels (ii) No increase in CO above 10% from baseline levels |

1. The option to comply with the Tier 1 standards is available only if no off-road engine certification 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.

(B) 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 sections 610 and 620;

(C) 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.

(2) *Additional Standards:* Owners or operators that choose to meet the diesel PM limits defined in section 430(b) with

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

- (A) Meet the applicable HC, NOx, NMHC+NOx, 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 new stationary emergency standby diesel-fueled CI engine's model year; or
- (B) 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.

(3) *District Determinations:* The Air Pollution Control Officer may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards.

RULE 8-440 - Emission Standards for Stationary Diesel-Fueled CI Engines (>50 bhp) Used in Agricultural Operations.

(a) *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 sections 130, 440(a)(1)(A)5., and 440(a)(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.):

(A) *Diesel PM Standard:*

- 1. *New Engines 50 < 100 hp:* New agricultural stationary diesel-fueled CI engines, used in all agricultural operations except generator set applications with a maximum rated horsepower greater than 50 but less than 100 shall

| Table 5: Summary of the Emission Standards for New Stationary Diesel-Fueled CI Engines > 50 BHP Used in Agricultural Operations (See section 440(a)) | | |
|---|--|--|
| Horsepower Range (hp) | Diesel PM | Other Pollutants |
| | Diesel PM Standards (g/bhp-hr) | HC, NOx, NMHC+NOx, and CO Standards (g/bhp-hr) |
| All Applications Greater Than 50 But Less Than 100, Other Than Generator Sets | Less Than or Equal to 0.30 ¹ OR Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent | Off-Road CI Engine Certification Standard for an off-road engine of the model year and maximum rated power of the engine installed to meet the applicable PM standard, or Tier 1 standards. ¹ |
| All Applications Greater Than or Equal to 100 But Less Than 175, Other Than Generator Sets | Less Than or Equal to 0.22 ¹ OR Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent | |
| All Applications Greater Than or Equal to 175, Other Than Generator Sets | Less than or Equal to 0.15 ¹ OR Off-Road Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent | |
| Generator Set Engines Greater Than 50 | Less Than or Equal to 0.15 ¹ OR Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent. | |

1. Prior to January 1, 2008, these limits shall not apply to engines sold from one agricultural operation to another and funded under State or federal incentive funding programs, as specified in 440(a)(2).

emit no more than 0.30 g/bhp-hr diesel particulate matter (PM) limit or shall meet the standards, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines of the same maximum rated power (title 13, CCR, section 2423), in effect on the date of acquisition or submittal,

as defined in section 140, whichever is more stringent; and

2. *New Engines 100 < 175 hp:* New agricultural stationary diesel-fueled CI engines, used in all agricultural operations except generator set applications with a maximum rated horsepower greater than or equal to 100 but less than 175 shall emit no more than 0.22 g/bhp-hr diesel particulate matter (PM) limit or shall meet the standards, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines of the same maximum rated power (title 13, CCR, section 2423), in effect on the date of acquisition or submittal, as defined in section 140 whichever is more stringent; and
3. *New Engines 175 hp and Greater:* New agricultural stationary diesel-fueled CI engines, used in all agricultural operations except generator set applications with a maximum rated horsepower greater than or equal to 175 shall emit no more than 0.15 g/bhp-hr diesel PM or shall meet the standards, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines of the same maximum rated power (title 13, CCR, section 2423), in effect on the date of acquisition or submittal, as defined in section 140, whichever is more stringent; and
4. *New Generator Sets:* 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 standards, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines of the same maximum rated power (title 13, CCR, section 2423), in effect on the date of acquisition or submittal, as defined in section 140, whichever is more stringent;
5. *District Determinations:* On a site-specific basis, the Air Pollution Control Officer may extend compliance with sections 440(a)(1)(A)1. through 4. up to four years provided:
 - a. The District determines that an engine meeting sections 440(A)1. through 4. would exceed the District's threshold for significant risk pursuant to H&SC section 44391 (AB 2588 "Hot Spots" Program), and
 - b. No later than four years after the applicable initial compliance date for sections 440(a)

- (1)(A)1. through 4., one of the following is installed:
 - i. an electric motor;
 - ii. an engine greater than 50 bhp but less than 75 bhp that does not exceed 0.02 g/bhp-hr PM; or
 - iii. an engine greater than 75 bhp that does not exceed 0.01 g/bhp-hr diesel PM.

(B) *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.

- (2) *Specified Agricultural Engines:* Prior to January 1, 2008, the requirements of section 440(a)(1) shall not apply to any stationary diesel-fueled CI engine that:
 - (A) is used in agricultural operations; and
 - (B) was funded under a State or federal incentive funding program; and
 - (C) 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).

For purposes of this subsection, State or federal incentive funding programs 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.

(b) *Emission Standards for In-Use Stationary Diesel-Fueled CI Engines (>50 bhp) Used in Agricultural Operations.*

- (1) *In-use Engines Greater than 50 hp:* Except as provided in sections 130 and 440(b)(5) through (7), no owner or

(2) *Diesel PM Standards for Noncertified In-use Stationary Diesel-fueled CI Engines Used in Agricultural Operations (except as provided in section 130):*

- (A) *In-use Tier 0 Generator Sets 50 < 75 hp:* On or after December 31, 2015, no owner or operator shall operate any greater than 50 but less than 75 bhp noncertified stationary diesel-fueled generator set engine used in an agricultural operation unless such generator set engine's diesel PM emissions do not exceed 0.02 g/bhp-hr.
- (B) *In-use Tier 0 Generator Sets 75 < 175 hp:* On or after December 31, 2015, no owner or operator shall operate any greater than or equal to 75 but less than 175 bhp noncertified stationary diesel-fueled generator set engine used in an agricultural operation unless such generator set engine's diesel PM emissions do not exceed 0.01 g/bhp-hr.
- (C) *In-use Tier 0 Engines 50 < 75 hp:* On or after December 31, 2011, no owner or operator shall operate any greater than 50 but less than 75 bhp noncertified stationary diesel-fueled engine (other than a generator set engine) used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.30 g/bhp-hr.
- (D) *In-use Tier 0 Engines 75 < 100 hp:* On or after December 31, 2011, no owner or operator shall operate any greater than or equal to 75 but less than 100 bhp noncertified stationary diesel-fueled engine (other than a generator set engine) used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.30 g/bhp-hr.
- (E) *In-use Tier 0 Engines 100 < 175 hp:* On or after December 31, 2010, no owner or operator shall operate any greater than or equal to 100 but less than 175 bhp noncertified stationary diesel-fueled engine (other than a generator set engine) used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.22 g/bhp-hr.
- (F) *In-use Tier 0 Engines and Generator Sets 175 < 750 hp:* On or after December 31, 2010, no owner or operator shall operate any greater than or equal to 175 through 750 bhp noncertified stationary diesel-fueled engine

used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.15 g/bhp-hr.

- (G) *In-use Tier 0 Engines and Generator Sets Greater than 750 hp:* On or after December 31, 2014, no owner or operator shall operate any greater than 750 bhp noncertified stationary diesel-fueled engine used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.075 g/bhp-hr.

| Table 6: Emission Standards Noncertified (Tier 0) Greater than 50 BHP In-Use Stationary Diesel-Fueled Engines Used in Agricultural Operations See sections 440(b)(2) and (4) | | | | |
|---|---------------------------|--|---|---|
| Horsepower Range (hp) | Application | Compliance On or After December 31 | Diesel PM Not to Exceed (g/bhp-hr) | HC, NOx, NMHC+NOx, and CO Not to Exceed (g/bhp-hr) |
| Greater Than 50 But Less Than 75 | Generator Sets | 2015 | 0.02 | Off-Road CI Engine Certification Standards for an off-road engine of the model year and maximum rated power of the engine installed to meet the applicable PM standard. ¹ |
| | All Other Applications | 2011 | 0.30 | |
| Greater Than or Equal to 75 But Less Than 100 | Generator Sets | 2015 | 0.01 | |
| | All Other Applications | 2011 | 0.30 | |
| Greater Than or Equal to 100 But Less Than 175 | Generator Sets | 2015 | 0.01 | |
| | All Other Applications | 2010 | 0.22 | |
| Greater Than or Equal to 175 But Less Than or Equal to 750 | All Applications | 2010 | 0.15 | |
| Greater Than 750 | All Applications | 2014 | 0.075 | |

1. If no limits have been established for an off-road engine of the same model year and maximum rated power, then the in-use stationary diesel-fueled engine used in an agricultural operation shall not exceed Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power irrespective of model year.

- (3) *Diesel PM Standards for Tier 1- and Tier 2-Certified In-use Stationary Diesel-fueled Engines Used in Agricultural Operations (except as provided in section 130):*

- (A) *In-use Tier 1 & 2 Engines 50 < 75 hp:* On or after December 31, 2015, or 12 years after the date of initial installation, whichever is later, no owner or operator shall operate any greater than 50 but less than 75 bhp Tier 1- or Tier 2-certified stationary diesel-fueled engine used in an agricultural operation

unless such engine's diesel PM emissions do not exceed 0.02 g/bhp-hr.

- (B) *In-use Tier 1 & 2 Engines 75 < 175 hp:* On or after December 31, 2015, or 12 years after the date of initial installation, whichever is later, no owner or operator shall operate any greater than or equal to 75 but less than 175 bhp Tier 1- or Tier 2-certified stationary diesel-fueled engine used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.01 g/bhp-hr.
- (C) *In-use Tier 1 & 2 Engines 175 < 750 hp:* On or after December 31, 2014, or 12 years after the date of initial installation, whichever is later, no owner or operator shall operate any greater than or equal to 175 through 750 bhp Tier 1- or Tier 2-certified stationary diesel-fueled engine used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.01 g/bhp-hr.
- (D) *In-use Tier 1 & 2 Engines Greater than 750 hp:* On or after December 31, 2014 or 12 years after the date of initial installation, whichever is later, no owner or operator shall operate any greater than 750 bhp Tier 1- or Tier 2-certified stationary diesel-fueled engine used in an agricultural operation unless such engine's diesel PM emissions do not exceed 0.075 g/bhp-hr.
- (4) *HC, NOx, NMHC+NOx, and CO Standards:* An agricultural engine shall not exceed 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 CI 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, then the in-use stationary diesel-fueled engine used in an agricultural operation shall not exceed Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power irrespective of model year.
- (5) *Executive Officer Determinations:* The Executive Officer may extend the compliance dates in sections 440(b)(1) through (4) up to one year, provided that verifiable information shows new engine packages for stationary diesel engine applications are not available in sufficient numbers or in a sufficient range of makes, models, and sizes to replace in-use stationary diesel agricultural engines.
- (6) *Site-specific Determinations:* On a site-specific basis, a Air Pollution Control Officer may extend compliance dates in sections 440(b)(1), (2), and (4) up to four years provided:

- (A) A District determines that an engine meeting section 440(b)(2) would exceed a District's threshold for significant risk pursuant to H&SC section 44391 (AB 2588 "Hot Spots" Program), and
 - (B) No later than four years after the applicable initial compliance date for section 440(b)(2), one of the following is installed:
 1. an electric motor;
 2. an engine greater than 50 bhp but less than 75 bhp that does not exceed 0.02 g/bhp-hr PM; or
 3. an engine greater than 75 bhp that does not exceed 0.01 g/bhp-hr diesel PM.
- (7) *District Determinations:* The Air Pollution Control Officer may take the following actions:
- (A) *Electrification:* Allow an owner or operator up to two additional years to comply with sections 440(b)(1) through (4), provided at least 60 days prior to the applicable compliance date or dates, the owner or operator submits to the District Air Pollution Control Officer documentation demonstrating that an affected engine or engines shall be replaced with an electric motor or electric motors within two years. Documentation for each engine replaced shall include identification of the engine, the purchasing agreement for the electric motor, and a copy of an agreement with a utility distribution company to provide electricity if electricity is not already available for electric motor operation.
 - (B) *More Stringent Emission Limits:* Establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission limits, emission limit compliance dates, or other requirements.
 - (C) *Low-Use Alternative Compliance Plan (ACP):* Approve a request from an owner of an agricultural engine for a low-use ACP, provided the approval is in writing and the following conditions are met:
 1. The owner/operator holds or applies for a Permit to Operate for the engine with the District.
 2. The owner/operator applies for a low-use ACP prior to December 31, 2010.
 3. The engine shall be equipped with a non-resettable hour counting meter to indicate the number of hours the engine is operated.
 4. A Tier 0 or 1 engine operating under a low-use ACP shall be removed from operation or replaced with the highest Tier Engine that is commercially available prior to December 31, 2020.
 5. A Tier 2 engine operating under a low-use ACP shall be removed from operation or replaced with the

6. Beginning in 2010, the owner/operator shall record the hour meter readings on a monthly basis and submit the readings to the District with the permit annual renewal fee.
7. The engine is not located within 200 meters of a residential area, school, or hospital and operates less than 100 hours per year.
8. Any engine that is operating under a low-use ACP that no longer meets the terms of the ACP, including those listed in (C)1. through (C)7., above, shall notify the District in writing of the change of status, and shall comply with the applicable emissions standards of section 440 within six months.

| Table 7: Emission Standards Tier 1- and Tier 2-Certified Greater than 50 BHP In-Use Stationary Diesel-Fueled Engines Used in Agricultural Operations See sections 440(b)(3) and (4) | | | |
|--|--|--|--|
| <i>Horsepower Range (hp)</i> | <i>Compliance On or After December 31</i> | <i>Diesel PM Not to Exceed (g/bhp-hr)</i> | <i>HC, NOx, NMHC+NOx, and CO Not to Exceed (g/bhp-hr)</i> |
| Greater Than 50 But Less Than 75 | 2015 or 12 years after the date of initial installation, whichever is later | 0.02 | Off-Road CI Engine Certification Standards for an off-road engine of the model year and maximum rated power of the engine installed to meet the applicable PM standard. ¹ |
| Greater Than or Equal to 75 But Less Than 175 | 2015 or 12 years after the date of initial installation, whichever is later | 0.01 | |
| Greater Than or Equal to 175 But Less Than or Equal to 750 | 2014 or 12 years after the date of initial installation, whichever is later | 0.01 | |
| Greater Than 750 | 2014 or 12 years after the date of initial installation, whichever is later | 0.075 | |

1. If no limits have been established for an off-road engine of the same model year and maximum rated power, then the in-use stationary diesel-fueled engine used in an agricultural operation shall not exceed Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power irrespective of model year.

RULE 8-450 - Emission Standards for New Stationary Diesel-Fueled Engines, Less Than or Equal to 50 Brake Horsepower (<50 bhp).

As of January 1, 2005, except as provided in section 130, no 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 8.)

| |
|---|
| Table 8: Summary of the Emission Standards for Stationary Diesel-Fueled CI Engines < 50 BHP (See section 450) |
| Diesel PM Standards, NMHC+NOx, and CO Standards (g/bhp-hr) |
| Current Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power |

RULE 8-500 - COMPLIANCE & ENFORCEMENT

RULE 8-510 - Recordkeeping, Reporting, and Monitoring Requirements.

(a) 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).

- (1) *New Engines:* Except as provided in section 130 and section 510(a)(5) 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 section 510(a)(3) to the District APCO.
- (2) *In-use Engines:* Except as provided in section 130 and section 510(a)(5) below, 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 section 510(a)(3) to the District APCO.
- (3) Each owner or operator shall submit to the District APCO the following information for each new and in-use stationary CI engine (>50 bhp) in accordance with the requirements of sections 510(a)(1) and (2) above:
 - (A) Owner/Operator Contact Information
 1. Company name
 2. Contact name, phone number, address, email address
 3. Address of engine(s)
 - (B) Engine Information
 1. Make,
 2. Model,
 3. Engine Family,
 4. Serial number,
 5. Year of manufacture (if unable to determine, approximate age),
 6. Rated Brake Horsepower Rating,
 7. Exhaust stack height from ground,
 8. Engine Emission Factors and supporting data for PM, NOx and NMHC separately or NMHC+NOx, and CO, (if available) from manufacturers data, source tests, or other sources (specify),
 9. Diameter of stack outlet,
 10. Direction of outlet (horizontal or vertical),
 11. End of stack (open or capped),
 12. Control equipment (if applicable)
 - a. Turbocharger,
 - b. Aftercooler,
 - c. Injection Timing Retard,

- d. Catalyst,
 - e. Diesel Particulate Filter,
 - f. Other;
- (C) Fuel(s) Used
- 1. CARB Diesel,
 - 2. Jet fuel,
 - 3. Diesel,
 - 4. Alternative diesel fuel (specify),
 - 5. Alternative fuel (specify),
 - 6. Combination (Dual fuel) (specify),
 - 7. Other (specify);
- (D) Operation Information, including:
- 1. Describe general use of engine,
 - 2. Typical load (percent of maximum bhp rating),
 - 3. Typical annual hours of operation,
 - 4. If seasonal, months of year operated and typical hours per month operated,
 - 5. Fuel usage rate (if available);
- (E) Receptor Information, including:
- 1. Nearest receptor description (receptor type),
 - 2. Distance to nearest receptor (feet or meters),
 - 3. Distance to nearest school grounds;
- (F) A statement whether the engine is included in an existing AB 2588 emission inventory.
- (4) Except as provided in section 130, no later than 180 days prior to the earliest applicable compliance date specified in sections 610 or 620, each owner or operator of an in-use stationary diesel-fueled CI engine greater than 50 brake horsepower (> 50 bhp) shall provide the following additional information to the District APCO: an identification of the control strategy for each stationary diesel-fueled CI engine that when implemented will result in compliance with sections 420 and 430. If applicable, the information should include the Executive Order number issued by the Executive Officer for a Diesel Emission Control Strategy that has been approved by the Executive Officer through the Verification Procedure.
- (5) An APCO may exempt the owner or operator from providing all or part of the information identified in sections 510(a)(3) or (4) if there is a current record of the information in the owner or operator's permit to operate, permit application, District registration program, or other District records.
- (6) Upon written request by the Executive Officer, an APCO shall provide to the Executive Officer a written report of all information identified in sections 510(a)(3) and (4).

(b) *Reporting Requirements for Sellers of Stationary Diesel-Fueled CI Engines Having a Rated Brake Horsepower Less Than or Equal to 50 (< 50 bhp).*

- (1) Except as provided in section 130, no later than January 31, 2006 and by January 31st of each year thereafter, all sellers of stationary diesel-fueled CI engines sold 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 to the Executive Officer of the Air Resources Board:

(A) Contact Information

1. Sellers Company Name (if applicable);
2. Contact name, phone number, email address;

(B) Engine Sales Information (for each engine sold for use in California in the previous calendar year)

1. Make,
2. Model,
3. Model year (if known),
4. Rated brake horsepower,
5. Number of engines sold,
6. Certification executive order number (if applicable),
7. Engine family number (if known),
8. Emission control strategy (if applicable).

(c) *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 420(a)(3), 420(a)(4), 420(c)(1)(C), and 430(a)(1) shall provide emission data to the District APCO in accordance with the requirements of section 520 for purposes of demonstrating compliance.
- (2) By no later than the earliest applicable compliance date specified in sections 610 or 620, the owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of section 420(b)(3), 420(c)(2)(C), or 430(b)(1) shall provide emissions and/or operational data to the District APCO in accordance with the requirements of section 520 for purposes of demonstrating compliance.

(d) *Notification of Loss of Exemption.*

- (1) Owners or operators of in-use stationary diesel-fueled CI engines, who are operating under an exemption specified in sections 130 or 440(a)(2) from all or part of the requirements of subsections 420, 430, or 440 shall notify the District APCO within five days after they become aware

that the exemption no longer applies and shall demonstrate compliance with the applicable requirements of:

- (A) section 420 or 430, no later than 180 days after the date the exemption no longer applies; or
 - (B) section 440, no later than 18 months after the date the exemption no longer applies or no later than 18 months after the emission standard compliance date set forth in section 440, whichever is later.
- (2) A District APCO shall notify owners or operators of in-use stationary diesel-fueled CI engines, operating under an exemption specified in requirements of section 520 and sections 420, 430, or 440, when the exemption no longer applies and the owner or operator shall demonstrate compliance with the applicable requirements of:
- (A) section 410, 420, or 430, no later than 180 days after notification by the District APCO; or
 - (B) section 440, no later than 18 months after notification by the District APCO or no later than 18 months after the emission standard compliance date set forth in section 440, whichever is later.
- (3) An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of sections 420, 430, or 440 shall provide emissions data to the District APCO in accordance with the requirements of section 520 for purposes of demonstrating compliance pursuant to section 510(d)(1) or (2).

(e) *Monitoring Equipment.*

- (1) A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 420, 430, or 440(a) or 440(b)(7)(C)3 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.
- (2) All DPFs installed pursuant to the requirements in sections must, upon engine installation or by no later than January 1, 2005, be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
- (3) The District APCO may 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 sections 420, 430, or 440(a).

(f) *Reporting Provisions for Exempted Agricultural Emergency, Prime, and Nonagricultural Emergency Engines.* An owner or operator of an agricultural emergency standby generator set engine subject to section 130(a) or an engine subject to sections 130(d) or 130(j) 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 the 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.

(g) *Reporting Requirements for Emergency Standby Engines.*

- (1) Starting January 1, 2005, each owner or operator of an emergency standby diesel-fueled CI engine shall keep records and prepare a monthly summary that list and document the nature of use for each of the following:
 - (A) emergency use hours of operation;
 - (B) maintenance and testing hours of operation;
 - (C) hours of operation for emission testing to show compliance with sections 420(a)(3) and 420(b)(3);
 - (D) initial start-up testing hours;
 - (E) if applicable, hours of operation to comply with the requirements of NFPA 25;
 - (F) hours of operation for all uses other than those specified in sections 510(g)(1)(A) through (D) above; and
 - (G) the fuel used.
 1. For engines operated exclusively on CARB Diesel Fuel, the owner or operator shall document the use of CARB Diesel Fuel through the retention of fuel purchase records indicating that the only fuel purchased for supply to an emergency standby engine was CARB Diesel Fuel; or
 2. For engines operated on any fuel other than CARB Diesel Fuel, fuel records demonstrating that the only fuel purchased and added to an emergency standby engine or engines, or to any fuel tank directly attached to an emergency standby engine or engines, meets the requirements of section 410(b).
- (2) Records shall be retained for a minimum of 36 months. Records for the prior 24 months shall be retained on-site, either at a central location or at the engine's location, or at an offsite central location within California, and shall be made immediately available to the District staff upon request. Records for the prior 25 to 36 months shall

be made available to District staff within 5 working days from request.

(h) Additional Reporting Requirements for the Stationary Emergency Standby Diesel-Fueled CI Engines Used To Fulfill the Requirements of an Interruptible Service Contract (ISC).

- (1) The owner or operator of an ISC engine shall provide to the District the following information, as necessary to the extent the District does not already have the information:
 - (A) For each diesel-fueled engine enrolled in the ISC:
 1. Owner's Company Name (if applicable);
 2. Contact name, phone number, e-mail address; and
 3. 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 510(i)(1)(A) shall be provided to the District by January 31, 2005; and
 - (C) For engines enrolled in an ISC after January 1, 2005, the information identified in 510(i)(1)(A) shall be provided to the District no later than 30 days after the engine is enrolled in an ISC.

The owner or operator shall update the information as necessary to reflect the current inventory of ISC engines and shall provide the updated information to the District upon request.

RULE 8-520 - Compliance Demonstration.

(a) Upon approval by the District APCO, the following sources of data may be used in whole or part to demonstrate compliance with the emissions standards or requirements of sections 420 through 450:

- (1) off-road engine certification test data for the stationary diesel-fueled CI engine,
- (2) engine manufacturer test data,
- (3) emissions test data from a similar engine,
- (4) emissions test data used in meeting the requirements of the Verification Procedure for the emission control strategy implemented, or
- (5) An alternative compliance demonstration as described in section 520(f).

(b) Emissions testing of a stationary diesel-fueled CI engine, for purposes of showing compliance with the requirements of sections 420 through 450, shall be done in accordance with the methods specified in section 530.

(c) 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.

(d) 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:

- (1) 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 District APCO's satisfaction as having no influence on the emission test results;
- (2) Control strategy testing shall be performed on the stationary diesel-fueled CI engine with full implementation of the emission control strategy;
- (3) 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
- (4) The same test method shall be used for determining both baseline emissions and control strategy emissions.

(e) 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.

(f) *Alternative Compliance Demonstration:* The owner or operator of a new or in-use stationary diesel-fueled CI engine greater than 50 bhp may demonstrate compliance with the 0.01 g/bhp-hr PM emission standard of sections 420 through 450 by using one of the following:

- (1) A Level 3 Verified Diesel Emission Control Strategy in combination with a certified CI engine that meets the 0.15 g/bhp-hr PM emission standard, or
- (2) An 85 percent PM emission reduction control strategy in combination with a certified CI engine that meets 0.15 g/bhp-hr PM emission standard, or
- (3) A certified CI engine that meets the 0.15 g/bhp-hr PM emission standard in combination with one of the emission control strategies identified in section 520(f)(1) or (f)(2) and meets the requirements of section 130(s) or section 130(v), or
- (4) Off-road CI equipment manufactured in compliance with the Transitional Implementation Flexibility Provisions for Equipment Manufacturers specified in title 13, CCR, section 2423(d); title 40 CFR, section 89.102(d); or title 40, CFR, section 1039.625 in combination with one of the

- emission control strategies identified in sections 520(f)(1) or (f)(2) provided the CI engine meets the 0.15 g/bhp-hr PM emission standard, or
- (5) A certified CI engine in an engine family identified by the manufacturer to participate in the averaging, banking, or trading program for that model year in compliance with the applicable subparts of title 40, CFR, section 89; title 40, CFR, section 1039; or title 13, CCR, section 2423(b)(2), provided the CI engine meets the 0.15 g/bhp-hr PM emission standard and is used in combination with one of the emission control strategies identified in sections 520(f)(1) or (f)(2), or
 - (6) A Tier 4 certified CI engine or a new piece of equipment identified in section (f)(4) that emits no more than 0.015 g/bhp-hr PM.

RULE 8-530 - Test Methods.

(a) The following test methods shall be used to determine diesel PM, HC, NO_x, CO and NMHC emission rates:

- (1) Diesel PM emission testing shall be done in accordance with one of the following methods:
 - (A) 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.
 - 1. For purposes of this subsection, 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.
 - 2. 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 District APCO.
 - 3. The District APCO may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
 - (B) 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
 - (C) 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) NO_x, CO and HC emission testing shall be done in accordance with one of the following methods:
 - (A) 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.

1. 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 District APCO.
 2. The District APCO may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
- (B) 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
- (C) 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.
- (3) NMHC emission testing shall be done in accordance with one of the following methods:
- (A) 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
 - (B) 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) The District APCO may approve the use of alternatives to the test methods listed in section 530(a), provided the alternatives are demonstrated to the APCO's satisfaction as accurate in determining the emission rate of diesel PM, HC, NOx, NMHC, or CO.

RULE 8-540 - Severability.

Each part of this ATCM shall be deemed severable, and in the event that any part of this ATCM is held to be invalid, the remainder of this ATCM shall continue in full force and effect.

RULE 600 - COMPLIANCE SCHEDULE

RULE 610 - Compliance Schedule for Owners or Operators of Three or Fewer Engines (>50 bhp) Located within a District.

(a) All owners and operators of three or fewer engines located within a District, who will meet the requirements of section 420(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 beginning January 1, 2006.

(b) All owners and operators of three or fewer engines located within a District, which are not in compliance with section 610(a) but are required to meet the requirements of sections 420(b) or 430(b), shall comply with section 420(b) or 430(b), whichever applies, according to the following schedule:

- (1) All pre-1989 through 1989 model year engines, inclusive, shall be in compliance by no later than January 1, 2006;
- (2) All 1990 through 1995 model year engines, inclusive, shall be in compliance by no later than January 1, 2007; and
- (3) All 1996 and later model year engines shall be in compliance by no later than January 1, 2008.

RULE 620 - Compliance Schedule for Owners or Operators of Four or More Engines (>50 bhp) Located within a District.

(a) All owners and operators of four or more engines located within a District, who will meet the requirements of section 420(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 beginning January 1, 2006.

(b) All owners and operators of four or more engines located within a District, who are not in compliance with section 620(a) but are required to meet the requirements of sections 420(b) or 430(b), shall comply with sections 420(b) or 430(b), whichever applies, according to the following schedule:

Pre-1989 Through 1989 Model Year Engines, Inclusive

| <u>Percent of Engines</u> | <u>Compliance date</u> |
|---------------------------|------------------------|
| 50% | January 1, 2007 |
| 75% | January 1, 2008 |
| 100% | January 1, 2009 |

1990 through 1995 Model Year Engines, Inclusive

| <u>Percent of Engines</u> | <u>Compliance date</u> |
|---------------------------|------------------------|
| 30% | January 1, 2007 |
| 60% | January 1, 2008 |
| 100% | January 1, 2009 |

1996 and Later Model Year Engines

| <u>Percent of Engines</u> | <u>Compliance date</u> |
|---------------------------|------------------------|
| 50% | January 1, 2008 |
| 100% | January 1, 2009 |

RULE 630 - Compliance Schedule for Engines with an Approved Alternative Compliance Schedule

(a) An engine that is subject to an approved low-use Alternative Compliance Schedule (ACP) pursuant to section 440(b)(7) shall comply with the emissions standards of section 440 (b)(1) through (b)(4), inclusive on the following schedule:

Low-Use ACP Compliance Schedule

| <u>Engine Tier</u> | <u>Compliance date</u> |
|----------------------|------------------------|
| Tier 0 (uncertified) | December 31, 2020 |
| Tier 1 | December 31, 2020 |
| Tier 2 | December 31, 2025 |

(b) An engine that is subject to an approved low-use Alternative Compliance Schedule (ACP) pursuant to 440(b)(7), but which for any reason no longer meets the terms of the ACP, shall notify the District in writing of the change in status, and shall comply with the emissions standards of section 440 (b)(1) through (b)(4), inclusive within six months.