

State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text and Supporting Documents

PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO THE
STATIONARY DIESEL ENGINE MEASURE

Public Hearing Date: November 16, 2006
Public Availability Date: April 10, 2007
Deadline for Public Comment: April 25, 2007

The Originally Proposed Amendments

At its November 16, 2006 public hearing, the Air Resources Board (ARB or Board) considered the adoption of sections 93115.1 through 93115.15 inclusive to supersede the requirements set forth in section 93115, title 17, California Code of Regulations (CCR), and amended the existing Airborne Toxic Control Measure for Stationary Compression Ignition Engines (Stationary Diesel Engine ATCM) set forth in section 93115, title 17, CCR. The proposed amendments were described in detail in Staff Report: Initial Statement of Reasons for Proposed Requirements for Stationary Diesel In-Use Agricultural Engines (Staff Report) published on September 29, 2006. These amendments would:

- Establish emission performance standards and registration requirements for greater than 50 horsepower (hp) in-use stationary diesel agricultural engines;
- Clarify and improve the implementation and enforcement of existing provisions for prime and emergency standby engines; and
- Renumber the Stationary Diesel Engine ATCM to facilitate the determination of applicability of requirements.

The Board's Action

At the November 16, 2006 hearing, ARB staff presented and the Board approved modifications to the regulations originally proposed in the Staff Report released on September 29, 2006. These modifications were approved by the Board as part of Resolution 6-39, and were proposed in response to comments received after Staff Report publication but before the hearing. Attachment A of Resolution 06-39 contains the amendments as originally proposed while Attachment B of Resolution 06-39 contains the modifications staff suggested at the hearing. The Resolution and its attachments are available online at the following ARB internet site: <http://www.arb.ca.gov/regact/agen06/agen06.htm>. The Resolution directed the Executive Officer to incorporate the modifications into the proposed regulatory text, with such other conforming modifications as may be appropriate (including one specified by

the Board), and to make the modified regulatory language available for a supplemental comment period of 15 days.

The Modified Text Being Made Available for Comment

Subsequent to the hearing, ARB staff identified additional conforming modifications that are appropriate to make the amended regulation work as effectively as possible. Attachment 1 to this notice contains the proposed regulatory text showing the modifications now being proposed, including the modifications contained in Attachment B to the Resolution. All modifications are shown in double underline to indicate additions and in ~~double strikethrough~~ to indicate deletions, compared to the originally proposed amendments shown in single underline and ~~single strikethrough~~. In the following summary of the modifications, all modifications prepared subsequent to the hearing are specifically identified.

Summary and Rationale for the Proposed Modifications

Remotely-Located Agricultural Engine Exemption - Applicability Change

The remotely-located agricultural engine definition and exemption requirements were modified as follows:

- Section 93115.4(kkk)(1) of the definition was modified to allow engines located in federally-designated “unclassifiable,” as well as “attainment,” areas for ozone or particulate matter (PM) criteria pollutant standards to qualify for the remotely-located agricultural engine exemption. This post-hearing change was made because the U.S. Environmental Protection Agency (U.S. EPA) treats “unclassifiable” areas (i.e., “any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant”) the same as “attainment” areas for the purposes of federal regulations. Since about 75 percent of California's local air districts are “unclassifiable” with respect to the federal ambient air quality PM 10 standard, this change expands the applicability of the remotely-located agricultural engine exemption to more areas of the State.
- Consistent with the Board’s direction, section 93115.4(kkk)(2) of the definition was modified to replace the requirement that a remotely-located agricultural engine be located more than “one-half mile from any receptor location” with the requirement that it be located more than “one-half mile from any residential area, school, or hospital.” In this context, a “residential area” is three or more permanent residences (i.e., homes) outside the farm property as opposed to the more inclusive “receptor location” which would include any single residence (e.g., a neighboring farmer's home) and businesses as well as schools and hospitals. Associating the engine location requirement with “residential area, school, or hospital” instead of “receptor location” will increase eligibility for the

remotely-located agricultural engine exemption. Under the control measure, remotely-located agricultural engines are exempt from emission limits, but remain subject to registration requirements. The modification is consistent with section 92115.8(c)(15) agricultural engine registration requirements which require engine owners and operators to provide information on nearby residential areas, schools, or hospitals rather than receptor locations.

- Sections 93115.4(kkk)(3) and (4) of the definition were eliminated to remove limits that would have excluded Tier 1-certified agricultural engines operating more than 200 hours annually and Tier 2-, Tier 3-, or Interim Tier 4-certified agricultural engines operating more than 600 hours annually from remotely-located agricultural engine exemption eligibility.
- Consistent with removing operating hour limits in the definition of “Remotely-Located Agricultural Engine,” section 93115.3(a) and section 93115.10(f) requirements for tracking annual operating hours through nonresettable hour meters and recordkeeping were eliminated as no longer justifiable or necessary to demonstrate eligibility for the remotely-located agricultural engine exemption.

By expanding the applicability of the remotely-located agricultural engine exemption, these modifications will relieve additional engine owners and operators from the burden and cost of replacing, retrofitting, or keeping operating records on remotely-located agricultural engines without significantly affecting the overall health-protectiveness of the regulation.

Most engines meeting the revised criteria for the exemption are expected to pose a lifetime (i.e., 70-year) potential cancer risk of less than 10 chances per million which is considered an “acceptable” risk level by most local air districts. Agricultural engine registration provisions require that remotely-located agricultural engines be identified. If a local air district determines that a remotely-located agricultural engine exempted under the regulation does pose a significant health risk to nearby receptors, the district can take action to reduce emissions and health risk pursuant to the AB 2588 Hot Spots Program.

Clarification of Agricultural Engine Registration and Reporting Requirements

A post-hearing modification to Section 93115.8(c) was made to clarify when agricultural engine owners/operators must submit registration information and report to local air districts.

For in-use engines (i.e., those installed prior to January 1, 2005), section 93115.8(c)(1)(A) requires that registration information be submitted no later than March 1, 2008. For new engines installed on or after March 1, 2008, section 93115.8(c)(1)(B) requires that registration information be submitted within 90 days after initial installation. For new engines installed on or after January 1, 2005,

but prior to the effective date of the amended ATCM, section 93115.8(c)(1)(C) requires that registration information be submitted within 90 days after initial installation or the effective date of the amended Stationary Diesel Engine ATCM, whichever is later. These modifications ensure that registration submittal requirements are specified for all applicable agricultural engines and that sufficient time is allowed for local air districts to establish registration programs.

Section 93115.8(c)(3) was modified to clarify that engine owner/operators of registered “new,” as well as “in-use,” agricultural engines must report engine changes (e.g., replacement, modification, changes in location and/or ownership, etc.) to the local air districts within 14 days of a change.

Elimination of Sellers Report on Engine Operating Hours at Delivery

The section 93115.10(b)(1)(B)9 requirement for sellers to track and annually report metered hours of operation at delivery for each less than or equal to 50 hp stationary diesel-fueled (CI) engine was removed. The requirement is not practical because the regulation does not require local air districts to distinguish between seller annual operating hours and owner/operator annual operating hours. Also, seller operating hours are expected to be very low in comparison to owner/operator operating hours. ARB staff anticipate few, if any, instances where a seller's operating hours could make a difference when local air districts verify compliance with the regulation's annual operating hour limits. Such a requirement would have added significantly to the seller's recordkeeping and reporting burden without commensurate implementation or enforcement benefit.

“New CI Engine” Definition Change

The definition of “New CI Engine” (section 93115.4(xx)(1)(G)) was modified to clarify that greater than 50 hp Tier 1- and Tier 2-certified stationary diesel agricultural engines installed after January 1, 2005, are subject to new engine emission limits in section 93115.8(a) until 12 years after the date of installation. If they are still being operated 12 years after the date of installation, they become subject to in-use emission limits for Tier 1- and Tier 2-certified engines in section 93115.8(b)(3). This modification avoids the potential misinterpretation that Tier 1- and Tier 2-certified engines installed after January 1, 2005, are only subject to the emission limits in effect on the date of installation.

Alternative Compliance Demonstration to Meet the 0.01 g/bhp-hr Diesel PM Emission Standard

In the conforming modifications specifically directed by the Board in the Resolution, the structure of the alternative compliance demonstration provisions has been changed and their applicability to engines required to meet 0.01 g/bhp-hr diesel PM emission standards has been expanded. ARB staff believe that these changes more effectively implement reasonable compliance options as discussed during the Board Hearing on November 16, 2006.

Section 93115.13(f) has been added to identify several emission control strategies that may be used to demonstrate compliance with the 0.01 grams per brake horsepower-hour (g/bhp-hr) diesel PM emission standard for new and in-use prime and emergency standby engines. Previous references to the 0.01 g/bhp-hr PM emission compliance option, which occurred in several places in the regulatory language from sections 93115.6 through 93115.9, have been removed since the addition of section 93115.13(f) makes them redundant.

Specifically, 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 93115.6 through 93115.9 by using any one of the following emission control strategies:

- An emission control strategy in combination with a certified CI engine as long as the CI engine meets the 0.15 g/bhp-hr diesel PM emission standard. The emission control strategies must be a Level 3 Verified Diesel Emission Control Strategy or a strategy that demonstrates at least an 85 percent reduction in PM emissions;
- The installation of new equipment under the Flexibility Program for Equipment Manufacturers (as specified in title 13, CCR, section 2423 (d); title 40, CFR, section 89.102 (d); or title 40, CFR, section 1039.625) as long as the CI engine in the new piece of equipment meets the 0.15 g/bhp-hr diesel PM emission standard in combination with either a Level 3 Verified Diesel Emission Control Strategy or a strategy that demonstrates at least an 85 percent reduction in PM emissions;
- The installation of certified CI engines whose engine family the engine manufacturer identified to participate in the Averaging, Banking, or Trading Program for that model year as provided in the applicable sections of 40 CFR 89, 40 CFR 94, 40 CFR 1039, or 13 CCR 2423(b)(2) in combination with either a Level 3 Verified Diesel Emission Control Strategy or a strategy that demonstrates at least an 85 percent reduction in PM emissions; or
- The installation of a Tier 4-certified engine or a new piece of equipment identified pursuant to the Flexibility Program for Equipment Manufacturers that emits no more than 0.015 g/bhp-hr PM.

These modifications are expected to expedite local air district permitting processes and limit the costs associated with (or eliminate the need for) source testing. Additionally, they will provide consistency and more certainty to end users throughout the State regarding which technologies are acceptable to demonstrate compliance with the ATCM's 0.01 g/bhp-hr diesel PM emission standard.

Addition of an Exemption to Address Insufficient Availability of New Compliant Engines

In the Fall of 2006, ARB staff became aware that insufficient availability of compliant new Tier 3 stationary and portable CI engines used in a variety of applications has made it extremely difficult and/or costly for engine sellers and owners/operators to comply with the ATCM's new engine emission requirements. Emergency amendments approved by the Board at a public hearing on December 7, 2006, added title 13, CCR section 93115(c)(21) to authorize the Executive Officer or local air district to 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 (or portable) diesel-fueled engine emission standards, if verifiable information is provided documenting that current model year engines meeting the current emission standards are not available in sufficient numbers or in a sufficient range of makes, models, and horsepower ratings.

Since the emergency amendments are temporary and are scheduled to expire in April 2007, permanent amendments are necessary to ensure that owners/operators can replace failed stationary CI engines and continue to operate during future transitions to more stringent standards. Therefore, a proposed amendment to the ATCM adding section 93115.3(v) on a permanent basis has been included as part of the post-hearing changes. The language being added is consistent with the emergency language.

Minor Changes to Clarify Regulatory Language

- Section 93115.3(n) was modified to update the reference to the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems" to the 2002 edition or the most current edition approved by the Executive Officer. ARB staff discovered that the most recent edition was published in 2002; the next edition will be published in 2007. Once the new 2007 edition is published, ARB's Executive Officer will recognize it as the most current edition of the 'National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems" through an ARB Regulatory Advisory.
- In a post-hearing modification, ARB staff changed Section 93115.3(u)(1) to clarify that testing a CI engine includes any tests performed on components of the engine, e.g., turbochargers.
- Section 93115.6(a)(4)(A)1 was modified to be consistent with the modification made to section 93115.3(n), as discussed above.
- Section 93115.8(b)(4) was modified to clarify that the HC, NO_x, NMHC+NO_x, and CO standards are applicable to an agricultural "engine" rather than an agricultural "operation." The regulation is not intended to regulate an agricultural operation which could include emission sources other than CI engines.
- In a post-hearing modification, ARB staff changed the title of section 93115.13

from "Emissions Data" to "Compliance Demonstration" and changed section 93115.13(a) consistent with change in the section's title. These changes were made to clarify that the intended purpose of section 93115.13 is to identify data sources that can be used, separately or in combination, to demonstrate compliance with the applicable emission standards set forth in sections 93115.6 through 93115.9. Additional modifications to section 93115.13 clarify alternative means of demonstrating compliance as described in the section entitled "Alternative Compliance Demonstration to Meet the 0.01 g/bhp-hr Diesel PM Emission Standard," above.

Additional Supporting Documents and Information Being Made Available

In accordance with Government Code section 11347.1, ARB staff has added a revised Staff Report Appendix D (Emission Inventory Methodology) to the rulemaking file (see Attachment 2). ARB staff has revised Appendix D to correct emission and fuel correction factors and to apply emission rate deterioration factors over the total life, rather than the average or "useful" life, of diesel agricultural irrigation pump engines. These changes resulted in an overall 15 percent reduction in 2003 base year emission estimates, but did not substantially affect the regulation's anticipated percent emission reductions or cost impacts. Additionally, a copy of the NFPA 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 2002 edition, has been added to the rulemaking file. The regulatory documents for this rulemaking are available online at the ARB internet site identified above: <http://www.arb.ca.gov/regact/agen06/agen06.htm>.

Comments and Subsequent Action

In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to adopt the modifications to sections 93115.1 through 93115.15, title 17, CCR, after making them available to the public for comment for a period of at least 15 days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Written comments on the modifications and the additional supporting document being made available may be submitted by postal mail, electronic mail, or facsimile as follows:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Facsimile submittal: (916) 322-3928

In order to be considered by the Executive Officer, comments must be directed to the ARB in one of the three forms described above and received by the ARB by 5:00 p.m. on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations and the revised Appendix D will be considered by the Executive Officer.

Attachments