

State of California  
AIR RESOURCES BOARD

**Resolution 05-33**

May 26, 2005

Agenda Item No: 05-5-3

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board (the Board or ARB) to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to, and imposed upon, the Board by law;

WHEREAS, on February 26, 2004, the Board adopted Resolution 03-30 approving the Airborne Toxic Control Measure for Stationary Compression Ignition Engines as codified in title 17, California Code of Regulations, section 93115;

WHEREAS, among other provisions, title 17, California Code of Regulations, section 93115 requires new stationary compression ignited agricultural pump engines (agricultural pump engines) greater than 50 to less than 175 horsepower (hp) to meet a particulate matter (PM) standard of 0.15 grams per brake horsepower-hour (g/bhp-hr) beginning on January 1, 2005;

WHEREAS, after ARB adopted the measure, local air pollution control and air quality management districts (districts) and agricultural equipment distributors and dealers expressed concern about the availability of greater than 50 to less than 175 hp diesel agricultural pump engines meeting the 0.15 g/bhp-hr PM standard;

WHEREAS, in response to these concerns, ARB staff conducted an investigation into the availability of 0.15 g/bhp-hr PM-compliant diesel agricultural pump engines in the greater than 50 to less than 175 hp range;

WHEREAS, on March 17, 2005, after hearing a presentation on ARB staff's investigation and testimony from agricultural industry representatives and engine manufacturers, distributors, and dealers, the Board adopted Resolution 05-29, by which it adopted an emergency regulatory action replacing the title 17, California Code of Regulations, section 93115(e)(2)(E) PM standard of 0.15 g/bhp-hr for agricultural pump engines greater than 50 to less than 175 hp with ARB and federal new off-road engine certification PM standards for engines of the same brake horsepower rating and model year;

WHEREAS, in Resolution 05-29 the Board also directed ARB staff to work with stakeholders to further investigate the availability of greater than 50 to less than 175 hp 0.15 g/bhp-hr PM-compliant diesel agricultural pump and new stationary diesel emergency standby engines (including direct-drive emergency standby engines and emergency standby generators) and to initiate a rulemaking for the Board to consider appropriate regulatory amendments to title 17, California Code of Regulations, section 93115 that would result in the continuing availability of cleaner new diesel engines in a variety of makes, models, and sizes;

WHEREAS, the emergency amendments the Board adopted in Resolution 05-29 were approved by the Office of Administrative Law (OAL) and became effective on April 4, 2005;

WHEREAS, by law, emergency regulations terminate 120 days after their effective date;

WHEREAS, ARB staff has worked closely with districts and affected industries to collect and evaluate further information regarding the availability of 0.15 g/bhp-hr PM-compliant agricultural pump and emergency standby engines greater than 50 to less than 175 hp and prepared a report entitled "Initial Statement of Reasons for Proposed Revisions to the Airborne Toxic Control Measure for Stationary Compression Ignition Engines" (Initial Statement of Reasons), dated April 2005;

WHEREAS, the Initial Statement of Reasons was made available for public review and comment starting April 8, 2005, at least 45 days prior to the public hearing to consider the proposed amendments to title 17, California Code of Regulations, section 93115;

WHEREAS, the proposed amendments were discussed at public workshops conducted on April 27, 2005, and May 4, 2005;

WHEREAS, in response to public comments made at the public workshops and on other occasions during the 45-day public review and comment period for the proposed amendments, ARB staff is suggesting several modifications to the originally proposed amendments regarding the 0.15 g/bhp-hr PM standard in section 93115, title 17, California Code of Regulations, in order to address:

The limited availability of 0.15 g/bhp-hr PM-compliant greater than 50 to less than 175 hp new stationary diesel agricultural wind machine engines and direct-drive emergency standby fire pump engines;

Fire protection performance and auxiliary equipment design issues regarding all sizes of direct-drive emergency standby fire pump engines and compliance with Tier 3 and Tier 4 ARB and federal off-road engine certification standards;

The operation of emergency standby engines during U.S. Air Force missile launches; and

Maintenance and testing of emergency standby engines at schools that are also the place of residence for students;

WHEREAS, Attachment A hereto contains the originally proposed amendments to title 17, California Code of Regulations, section 93115 as they were set forth in Appendix A of the Initial Statement of Reasons, and Attachment B hereto contains the ARB staff's suggested modifications to the original proposed amendments;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project which may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, ARB staff cannot predict the emission, exposure, and health risk reductions that would occur under the current, or proposed amendments to title 17, California Code of Regulations, section 93115 as a result of the voluntary replacement of old agricultural pump, agricultural wind machine, and direct-drive emergency standby fire pump engines with cleaner certified engines; however, by allowing voluntary replacement to proceed, ARB staff anticipates that the proposed amendments would cause no increase, and may result in a decrease, of diesel PM emissions, exposure, and health risk;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, in consideration of the Initial Statement of Reasons, written comments, and public testimony it has received, the Board finds that:

The availability of 0.15 g/bhp-hr PM-compliant diesel agricultural pump, agricultural wind machine, and direct-drive emergency standby fire pump engines is limited in the greater than 50 to 175 hp range;

There are sound technical and economic reasons why it is impractical and costly to purchase and use diesel agricultural pump, agricultural wind machine, and direct-drive emergency standby fire pump engines meeting the 0.15 g/bhp-hr PM standard if, as a result of limited availability, the ultimately acquired engines are larger or of a different design than the engines specifically required;

The continued limited availability of 0.15 g/bhp-hr PM-compliant agricultural pump, agricultural wind machine, and direct-drive emergency standby fire pump engines greater than 50 to less than 175 hp could reduce the voluntary replacement of existing older, dirtier engines with cleaner new engines and accordingly result in less diesel PM emission and exposure reductions than if replacement were allowed to proceed with engines meeting the current Tier 2 ARB and federal new off-road engine certification standards of 0.30 g/bhp-hr PM for engines greater than 50 to 99 hp and 0.22 g/bhp-hr PM for engines 100 to less than 175 hp;

Replacing the 0.15 g/bhp-hr PM standard for greater than 50 to less than 175 hp agricultural pump, agricultural wind machine, and direct-drive emergency standby fire pump engines with ARB and federal new off-road engine certification PM standards for engines of the same brake horsepower rating and model year is appropriate and necessary to ensure continued voluntary replacement with cleaner engines and avert supply disruption and potential adverse economic consequences for the agricultural and fire safety industries and the associated industries providing equipment;

Allowing direct-drive emergency standby fire pump engines an additional three years to comply with Tier 3 and Tier 4 certification standards is appropriate and necessary to provide sufficient time to design, test, and produce the special

auxiliary equipment crucial to meeting the rigorous reliability and performance standards for water-based fire protection systems;

Unrestricted operation of emergency standby engines by U.S. Air Force satellite stations during initial rocket and missile launch tracking is appropriate and necessary to ensure the safety of nearby persons and property;

Emergency standby engine maintenance and testing when students are present at schools that are also the places of residence for students is appropriate and necessary to ensure that these engines will work during emergencies;

Increasing the number of maintenance and testing hours for emergency standby engines operated at hospitals is necessary for compliance with accreditation standards to ensure that these engines will work during emergencies;

Replacing the requirement that new diesel engines meet Off-Road Compression Ignition Engine PM Standards (title 13, California Code of Regulations, section 2423) of the current model year with a requirement that they instead meet Off-Road Compression Ignition Engine PM Standards in effect at the time installation of the engine was approved by the District is appropriate and necessary to allow engine distributors and dealers to complete the sale of engines committed to orders or contracts prior to a new PM Standard taking effect;

The economic impacts of the proposed amendments have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis, as set forth in the Initial Statement of Reasons, are that no additional costs are expected to result from compliance, implementation, or enforcement of the amendments to title 17, California Code of Regulations, section 93115 approved herein;

No alternatives considered, or that have otherwise been identified and brought to the attention of the Air Resources Board, would be more effective at carrying out the purpose of title 17, California Code of Regulations, section 93115, or would be as effective and less burdensome to the affected private businesses and public agencies than the amendments approved herein;

WHEREAS, pursuant to the requirements of the California Environmental Quality Act and the Board's regulation, the Board further finds that:

Based on its independent judgment and analysis of the whole record before it, composed of all materials in the rulemaking record that is available at the Board's offices, the amendments to title 17, California Code of Regulations, section 93115 approved herein will not have a significant adverse effect on the environment; and

The amendments to title 17, California Code of Regulations, section 93115 approved herein are necessary to ensure diesel emissions, exposure, and health risk reductions from the continued voluntary replacement of older, dirtier diesel agricultural pump and wind machine engines with cleaner new ARB and federal certified diesel engines and to avert disruption and/or potential economic hardship

for agriculture, fire safety organizations, associated equipment industries, the U.S. Air Force, and children's live-in facilities.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the amendments to section 93115, title 17, California Code of Regulations as set forth in Attachment A hereto, with the modifications set forth in Attachment B hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to incorporate the modifications described in Attachment B into the amendments contained in Attachment A, with such other conforming modifications as may be appropriate, and then to adopt the modified amendments after making the modified regulatory language available for supplemental public comment for a period of 15 days, provided that the Executive Officer shall consider such written comments regarding the modifications as may be submitted during this period, shall make additional modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if he/she determines this is warranted.

BE IT FURTHER RESOLVED that the Board directs ARB staff to submit the amendments to the Office of Administrative Law (OAL) with a request that they become effective immediately upon filing with the Secretary of State.

BE IT FURTHER RESOLVED that the Board directs ARB staff to encourage and work with the districts to ensure that Carl Moyer Program engine replacement incentive funding priority be given to applications for new stationary greater than 50 to less than 175 hp diesel agricultural pump engines meeting 0.15 g/bhp-hr PM.

BE IT FURTHER RESOLVED that the Board directs ARB staff to work with the U.S. Environmental Protection Agency and the fire safety equipment industry to conduct a Tier 4 technology review for direct-drive emergency standby fire pump engines in the 2009 to 2010 timeframe.

BE IT FURTHER RESOLVED that the Board directs the ARB staff to work closely with all stakeholders including; engine manufacturers, California standby generator set equipment dealers and distributors, and equipment end users to ensure that complying new engines sold for standby generators sets are available to meet a 0.15 g/bhp-hr PM standard for engines greater than 50 to less than 175 hp.

I hereby certify that the above is a true and correct copy of Resolution 05-33, as adopted by the Air Resources Board.

---

Lori Andreoni, Clerk of the Board

Resolution 05-33

May 26, 2005

**Identification of Attachments to the Resolution**

- Attachment A: The Proposed Amendments to the Airborne Toxic Control Measure for Stationary Compression Ignition Engines (title 17, California Code of Regulations, section 93115) as set forth in Appendix A to the Initial Statement of Reasons, (released April 8, 2005).
- Attachment B: Staff's Suggested Modifications to the Original Proposal (distributed at the Board hearing on May 26, 2005).