

State of California
AIR RESOURCES BOARD

Resolution 04-43

December 9, 2004

Agenda Item No.: 04-11-4

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, sections 43013, 43101, and 43104 of the Health and Safety Code authorize the Board to adopt emission standards and test procedures to control air pollution caused by motor vehicles;

WHEREAS, section 43013(a) of the Health and Safety Code authorizes the Board to adopt and implement motor vehicle emission standards and in-use performance standards for the control of air contaminants and sources of air pollution which the Board has found to be necessary, cost-effective and technologically feasible, unless preempted by federal law;

WHEREAS, section 43013(b) of the Health and Safety Code requires the Board, consistent with section 43013(a), to adopt standards and regulations for off-road or nonvehicle engine categories;

WHEREAS, section 43013(c) of the Health and Safety Code requires the Board, prior to adopting standards and regulations for farm equipment, to find and determine that the standards and regulations are necessary, cost-effective, and technologically feasible;

WHEREAS, section 43013(c) of the Health and Safety Code requires the Board to also consider the technological effects of emission control standards on the cost, fuel consumption, and performance characteristics of mobile farm equipment;

WHEREAS, section 43018 of the Health and Safety Code directs the Board to endeavor to achieve the maximum degree of emission reduction possible from vehicular and other mobile sources in order to accomplish the attainment of the state ambient air quality standards at the earliest practicable date;

WHEREAS, in 2000, the Board approved regulations to further control exhaust emissions from new off-road compression-ignition (diesel) engines;

WHEREAS, exhaust emissions from off-road diesel engines continue to be a significant source of air pollution;

WHEREAS, it has since become evident that further reductions of oxides of nitrogen (NO_x), particulate matter (PM), and non-methane hydrocarbon (NMHC) emissions from new off-road engines operating within the state are feasible and imperative;

WHEREAS, in 2004, the United States Environmental Protection Agency (U.S. EPA) promulgated new emission standards for nonroad diesel engines, along with changes to the existing test procedures, certification requirements, and compliance options including the renewal of the federal averaging, banking, and trading program, and the equipment manufacturer flexibility program for the Tier 4 regulation;

WHEREAS, in conjunction with a public hearing notice dated October 12, 2004, and errata posted October 26, 2004, the staff has proposed that the Board adopt amendments to the California Emissions Regulation for Compression-Ignition Engines and Equipment, and the related compliance and test procedure sections of title 13, California Code of Regulations;

WHEREAS, section 209(e)(1) of the federal Clean Air Act preempts the State of California and the local air districts from adopting or enforcing emission standards and other requirements relating to the control of emissions (other than in-use operational controls) from new nonroad engines smaller than 175 horsepower primarily used in farm or construction equipment or vehicles;

WHEREAS, section 209(e)(2) of the federal Clean Air Act requires that California seek authorization from the U.S. EPA prior to enforcing emission standards or other requirements relating to the control of emission (other than in-use operational controls) from nonroad engines (of which off-road diesel engines are a subpart) not otherwise preempted by section 209(e)(1);

WHEREAS, ARB staff and the U.S. EPA have worked together to develop a harmonized national program in order to attain the air quality goals of each agency;

WHEREAS, the proposed amendments to existing California emission standards, compliance requirements, and test procedures are designed to harmonize as closely as possible with the federal program to minimize administrative burden, complexity, and expenses that could result from different state and federal requirements, while still maintaining the emission reduction benefits of the California program;

WHEREAS, the coordinated efforts of ARB, U.S. EPA, and the engine manufacturers to introduce lower-emitting off-road diesel engines nationwide will result in substantial air quality benefits in California and the rest of the country;

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, the Board has considered the effects of the proposed standards on the economy of the state;

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, the Board finds that:

Despite advances in reducing emissions from motor vehicles, California still has the most severe air pollution problem in the United States;

Reducing the public's exposure to PM emissions from diesel exhaust is of paramount importance for the protection of public health;

To meet federal and California Clean Air Act emissions reduction requirements, ARB must continue to seek proportional and incremental reductions from all sources under its authority, including off-road diesel engines;

Adoption of emission standards and requirements for durability, maintenance intervals, recordkeeping, warranties, test procedures, certification test fuel, and engine useful life in alignment with U.S. EPA emission standards and requirements will simplify the processes of certification and production line testing for industry;

Adoption of Not-To-Exceed limits will guarantee the emissions performance of Tier 4 engines in-use during all modes of operation, not just those encountered during certification testing;

Allowing engine manufacturers to participate in the federal Tier 4 Averaging, Banking, and Trading (ABT) program will provide industry with greater flexibility in complying with the emission standards while achieving the overall emission reduction goals of the proposed amended regulations;

Adoption of Tier 4 implementation flexibilities, in accordance with the allocations provided under the federal program, will provide equipment manufacturers

additional flexibility in the transition to more stringent emission standards and newer technologies;

Allowing industry to voluntarily certify engines to optional emissions standards (“Blue Sky Series”) that are more stringent than required and to promote that more stringent certification levels for equipment can aid consumers seeking lower emitting engines and can aid in reducing emissions;

Providing engine and equipment manufacturers with incentives to produce and use cleaner engines earlier than required can aid in the generation of additional short term emission reductions while preserving long-term emission and health benefits;

Allowing California to continue administering its own in-use compliance program for nonpreempt off-road diesel engines has the potential to provide a greater degree of emission benefits by allowing the State to address violations of the regulation in an appropriate and timely manner independently, or in cooperation with, the federal government;

The economic and cost impacts of the amendments have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the Initial Statement of Reasons;

The cost of control under the proposed regulations would be at worst case about \$0.58 per pound of ozone precursors reduced and \$7.55 per pound of PM reduced;

The cost-effectiveness values cited above are consistent with the values applicable to California, based on the U.S. EPA’s estimates for its Tier 4 rulemaking, and similar to the values associated with other control measures adopted in furtherance of Health & Safety Code sections 43013 and 43018; and

The proposed off-road diesel regulations – emission standards, compliance requirements, and test procedures – are necessary, appropriate, and technologically feasible to carry out the purposes of the state and federal clean air laws; and

Pursuant to section 43013(c) of the Health and Safety Code, the proposed off-road diesel regulations are necessary, cost-effective, and technologically feasible for farm equipment, and the Board considered the technological effects of emission control standards on the cost, fuel consumption, and performance characteristics of mobile farm equipment.

WHEREAS, the Board further finds that:

The proposed amendments to the regulations and procedures will adequately enforce the emissions standards and test procedures of the off-road compression-ignition engine regulations, and will independently help to reduce emissions from such engines;

The proposed amendments to the regulations establish uniform, consistent, and reasonable emission standards for off-road diesel engines and equipment;

Adoption of the proposed standards and test procedures, along with nonroad engine regulations promulgated by the U.S. EPA, will result in a reduction of approximately 72.8 tons per day of NO_x, 3.0 tons per day of NMHC, and 6.9 tons per day of PM emissions statewide in 2020;

The amended regulations will have no adverse impact on the environment;

The amended regulations will not affect the creation or elimination of jobs within the State of California, the creation of new businesses or the elimination of existing businesses within California, the expansion of businesses currently doing business within California, or the ability of California businesses to compete with businesses in other states;

The regulatory action will have no noticeable impact on California businesses, including small business, because the costs of complying with the federal nonroad regulation already take into account the costs to comply in California; and

No alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective or less burdensome to affected private persons.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves amendments to sections of title 13, California Code of Regulations, and the documents incorporated by reference therein: sections and subsections of 2420, 2421, 2423, 2424, 2425, and 2427; and "California Exhaust Emission Standards and Test Procedures for New 1996 and Later Tier 1, Tier 2, and Tier 3 Off-Road Compression-Ignition Engines," and "California Exhaust Emission Standards and Test Procedures for New 2000 and Later Tier 1, Tier 2, and Tier 3 Off-Road Compression-Ignition Engines," which are incorporated by reference in section 2423, and approves "California Exhaust Emission Standards and Test Procedures for New 2008 and Later Tier 4 Off-Road Compression-Ignition Engines" to be incorporated by reference in section 2421, all as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to adopt the above amendments as set forth in Attachment A hereto, with the modifications set forth in Attachment B hereto and such other conforming modifications and technical amendments as may be appropriate, after making the modified regulatory language and additional supporting documents and information available for public comment for a period of 15 days, provided that the Executive Officer shall consider such written comments regarding the modification and additional supporting documents and information as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if she determines that this is warranted.

BE IT FURTHER RESOLVED that the Board hereby determines that the regulations approved herein will not cause the California emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards.

BE IT FURTHER RESOLVED that the Board hereby finds that separate California emission standards and test procedures are necessary to meet compelling and extraordinary conditions.

BE IT FURTHER RESOLVED that the Board finds that the California emission standards and test procedures as approved herein will not cause the California requirements to be inconsistent with federal Clean Air Act section 209(e)(1) and raise no new issues affecting previous authorizations of the Administrator of the U.S. EPA issued pursuant to federal Clean Air Act section 209(e)(2).

BE IT FURTHER RESOLVED that the Executive Officer shall, upon adoption, forward the regulations to the U.S. EPA with a request for authorization or confirmation that the regulations are within the scope of an existing authorization pursuant to Federal Clean Air Act section 209(e)(2), as appropriate.

I hereby certify that the above is a true
And correct copy of Resolution 04-43, as
Adopted by the Air Resources Board.

Lori Andreoni, Clerk of the Board

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December 9, 2004

Identification of Attachments to the Resolution

Attachment A: Proposed amendments to the California Off-Road Emissions Regulation for Compression-Ignition Engines and Equipment, as set forth in Attachments 1-4 to the Initial Statement of Reasons, released October 22, 2004

Attachment B: Staff's Suggested Changes to the Original Proposal (distributed at the Board hearing on December 9, 2004)