

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE SMALL OFF-ROAD ENGINE REGULATIONS

The Air Resources Board (the "Board" or "ARB") will conduct a public hearing at the time and place noted below to consider amendments to the small off-road engine regulations.

DATE: March 26, 1998

TIME: 9:30 a.m.

PLACE: Board Hearing Room, Lower Level
2020 L Street
Sacramento, California 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:30 a.m., March 26, 1998, and will continue at 8:30 a.m., March 27, 1998. This item may not be considered until March 27, 1998. Please consult the agenda for the meeting, which will be available at least 10 days before March 26, 1998, to determine the day on which this item will be considered.

INFORMATIVE DIGEST OF PROPOSED ACTION/PLAIN ENGLISH POLICY STATEMENT OVERVIEW

Sections Affected: Amendment of the following chapter and sections of Title 13, California Code of Regulations, and the documents incorporated by reference therein: Chapter 9, Off-road Vehicles and Engines Pollution Control Devices; Article 1, Utility and Lawn and Garden Engines; Sections 2400, et seq., and the incorporated "California Exhaust Emission Standards and Test Procedures for 1995 and Later Utility and Lawn and Garden Equipment Engines;" and Article 3, Off-Highway Recreational Vehicles and Engines; Sections 2410 - 2414.

The California Clean Air Act as codified in the Health and Safety Code Sections 43013 and 43018 grants the ARB authority to regulate off-road mobile source categories. Included are marine vessels, locomotives, utility engines, off-road motorcycles, and off-highway vehicles.

In December, 1990, the Board approved emission control regulations for small off-road (utility) engines. (See Title 13, California Code of Regulations, sections 2400-2407 and the documents incorporated therein). The small off-road engine category was the first off-road category subject to emission control regulations because its emissions impact was significant and because a court order required Board action on the category by January 1991. As initially adopted, the small off-road engine regulations applied to engines produced on or after January 1, 1994. On July 5, 1995, the United States Environmental Protection Agency (U.S. EPA) approved California's authorization request; approval allows the state to enforce the regulations.

The small off-road engine regulations include exhaust emission standards, test procedures, and provisions for warranty and production engine compliance programs. The adopted

regulations consist of two tiers of emission standards. The Tier 1 took effect in 1995, while Tier 2 becomes effective in 1999. Exhaust emission standards were established for hydrocarbon (HC), oxides of nitrogen (NOx), carbon monoxide, and particulate (PM) (for diesel-powered and two-stroke engines only). Additionally, the regulations are divided into two major categories--handheld and nonhandheld. Engines used in handheld applications, such as chainsaws and trimmers, may comply with the less stringent set of emission standards.

The Board directed the ARB staff to present progress reports before implementing the Tier 2 small off-road engine standards in 1999. The reports are intended to inform the Board of industry's progress in developing the technology required to comply with the standards, and of any issues that must be addressed. The staff made its initial report to the Board on January 25, 1996. The Board's directives at that time were for staff to investigate how the regulations could be improved, and to consider issues raised by industry in this process.

The proposal described below is the staff's response to the Board's directives. In general, the staff recommends that the regulations be modified to reflect the realities of the small engine market and the technological capabilities of the industry. Specific major modifications are described below.

The staff proposes to revise the regulations to include all engines less than 25 horsepower that are used in off-road mobile applications. This would also include specialty vehicles and golf cart engines below 25 horsepower. New golf carts for use in areas that do not meet the federal ozone standards will continue to have a zero-emission requirement.

The staff proposes to replace the current standards categories of handheld and nonhandheld engines with standards categories based on engine displacement. Engines less than or equal to 60 cubic centimeters displacement would be subject to emissions standards formerly associated with handheld equipment engines, while engines greater than 60 cubic centimeters displacement would be subject to emissions standards formerly associated with nonhandheld equipment engines. The staff believes that the revised distinction will simplify matters for most engine manufacturers and their customers.

The staff recommends that the implementation of the 1999 emissions standards be delayed one year. Thus, the current Tier 1 new engine standards would be retained through 1999. The staff also proposes to add an emissions deterioration requirement for model year 2000 and subsequent engines. For engines less than or equal to 60 cubic centimeters ($\leq 60\text{cc}$) displacement, the proposed 2000 and subsequent emission standards for HC and NOx remain essentially unchanged from the 1999 Tier 2 levels for "handheld" engines. The proposal would combine the HC and NOx standards for $\leq 60\text{cc}$ engines to enhance compliance flexibility while maintaining the same overall level of ozone precursor emissions. For engines greater than 60 cubic centimeters displacement, the proposed emission standards for HC and NOx are a relaxation of the 1999 Tier 2 "nonhandheld" levels. Furthermore, the staff

proposes to align with the U.S. EPA/ARB/industry Statement of Principles¹ regarding the regulation of compression-ignition engines.

Staff's data confirm the need to consider an additional level of reduction that could apply to non-handheld engines. The Board will review all relevant evidence regarding the proposed Tier 2 standards and evidence supporting or opposing a standard more stringent than Tier 2 for non-handheld engines. Specific details on the proposed emission standards and implementation schedule are contained in the initial statement of reasons (staff report).

As noted above, the staff proposes to revise the regulations to ensure that engines are "emissions durable," i.e., controlled throughout their useful life. The staff proposes to differentiate engines based on emissions durability periods:

Emissions Durability Periods

| Displacement | Emissions Durability Periods (hours) | | |
|------------------------|--------------------------------------|-----|-----|
| | 0-60 cubic centimeters | 50 | 300 |
| > 60 cubic centimeters | 125 | 250 | 500 |

Staff proposes that manufacturers be required to note the durability period on the engine label, on the equipment label, on the equipment packaging, and in the owner's manual.

Because the sampling equipment required for PM is extremely expensive, the staff proposes that compliance with the proposed PM standard be determined through an engineering evaluation process, rather than through direct measurement. Specifically, the staff proposes that compliance with the 2-stroke particulate standard be determined from dividing the HC emissions by the fuel/oil ratio used in the engine.

The staff recommends that emissions averaging and credits programs be added to the certification and production line testing regulations, and that portions of the existing program be revised to increase industry flexibility with regards to compliance with the regulations. In particular, the staff recommends the addition of an option to the current quality-audit program that requires testing of one percent of production engines. The option would reduce the testing burden on manufacturers through the use of a statistical procedure that would more closely align the California program with the proposed federal program. The staff also

¹The U.S. EPA, ARB, and members of industry negotiated an agreement regarding compression-ignition engines that achieves the emissions reductions called for by SIP measures M9 and M10, but through a combination of different standards and timetables than those measures contain. The agreement included compression-ignition engines below 25 horsepower.

proposes to institute special reduced testing considerations for small volume manufacturers that produce less than 500 engines annually for California.

Finally, the staff proposes to make other miscellaneous changes to the regulations and test procedures to conform with federal practices and to clarify existing regulatory language.

The U.S. EPA also has regulations for small off-road engines (Title 40, Code of Federal Regulations, Part 90). Those regulations are similar to the California Tier 1 regulations that predated them. The U.S. EPA regulations differ from the ARB staff's proposal in a number of ways, including less stringent emissions standards, no control of engine deterioration, and no measures to increase industry flexibility such as averaging. The U.S. EPA is proposing a phase 2 regulation that will control engine deterioration and introduce flexibility measures such as averaging, but the emissions standards remain less stringent than the staff proposal. The staff has made every effort to minimize conflicts with the proposed U.S. EPA rule, while retaining specific features needed by California. Those efforts include aligning the structure of the production-line testing programs and the averaging programs. However, the proposal includes several differences from the U.S. EPA proposal, including year-round production-line testing, and more stringent emissions standards.

The staff analysis of the proposal indicates that the proposal will reduce emissions from ozone precursors in a cost-effective manner, beyond what would be accomplished either by the existing federal rule or by the federal proposal. Thus, the cost of the separate California program is justified by the benefit to human health, public welfare, and the environment. In addition, the differences from the federal program are authorized by Health and Safety Code sections 43013 and 43018.

AVAILABILITY OF DOCUMENTS AND CONTACT PERSON

The Board staff has prepared the staff report for the proposed action that includes a summary of the environmental impacts of the proposal. The staff report and the full text of the proposed regulatory language may be obtained from the Board's Public Information Office, 2020 L Street, Sacramento, California 95814, (916) 322-2990 at least 45 days prior to the scheduled hearing. The ARB has determined that it is not feasible to draft the regulation in plain English due to the technical nature of the regulation; however, a plain English summary of the regulation is available from the agency contact person named in this notice, and/or is also contained in the staff report for this regulatory action. Further inquiries regarding this matter should be directed to Ms. Jackie Lourenco, Manager, Off-Road Controls Section at (626) 575-6676 or Air Resources Board, Mobile Source Control Division, 9528 Telstar Avenue, El Monte, California 91731.

COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED

The determination of the Board's Executive Officer concerning the costs or savings necessarily incurred in reasonable compliance with the proposed regulations are presented below.

The Executive Officer has determined that the proposed regulatory action will not create costs or savings, as defined in Government Code section 11346.5(a)(6), to any state agency or in federal funding to the state, costs or mandate to any local agency or school district whether or not reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code, or other nondiscretionary savings to local agencies.

In developing this regulatory proposal, the ARB staff evaluated the potential economic impacts on private persons and businesses. The Executive Officer has determined, pursuant to Government Code section 11346.5(a)(3)(B), that the regulation will affect small business. The proposed amendment is intended to facilitate compliance with the small off-road engine regulations and to assure the continued availability of a full range of products to California businesses and individuals. Thus, the Executive Officer has also determined that adoption of the proposed regulatory action will not have a significant adverse economic impact on businesses, including the ability of California businesses to compete with businesses in other states.

The Executive Officer has determined that there will be no, or an insignificant, potential cost impact, as defined in Government Code section 11346.5(a)(9), on private persons or businesses directly affected resulting from the proposed action.

Finally, the Executive Officer has determined that the proposed regulatory action will not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within California, or the expansion of businesses currently doing business within California. Assessment of the economic impacts of the proposed regulatory action can be found in the staff report.

Before taking final action on the proposed regulatory action, the Board must determine that no alternative considered by the agency would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome of affected private persons than the proposed action.

SUBMISSION OF COMMENTS

A written report and oral statements will be presented by staff at the meeting. Interested members of the public may also present comments orally or in writing. To be considered by the Board, written comments must be filed with the Clerk of the Board, Air Resources Board, P.O. Box 2815, Sacramento, California 95812, no later than 12:00 noon March 25, 1998, or received by the Clerk of the Board at the meeting. It is requested but not required that twenty copies of any written statement be submitted.

STATUTORY AUTHORITY AND HEARING PROCEDURES

This regulatory action is proposed under that authority granted in Health and Safety Code Sections 39600 and 39601. This action is proposed to implement, interpret, and make specific Health and Safety Code Sections 43013 and 43018.

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Title 2, Division 3, Part 1, Chapter 3.5 (commencing with section 11340) of the Government Code.

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action; in such event the full regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15 days before it is adopted. The public may request a copy of the modified regulatory text from the Board's Public Information office, 2020 L Street, Sacramento, CA 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

Michael P. Kenny
Executive Officer

Date: