

State of California  
AIR RESOURCES BOARD

Resolution 03-24

September 25, 2003  
(adopting proposed changes)

Agenda Item No.: 03-7-3

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, Health and Safety Code sections 43013 and 43018 direct the ARB to set emission control requirements for off-road mobile source categories including marine vessels, locomotives, utility engines, off-road motorcycles, and off-highway vehicles;

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

WHEREAS, the recently proposed State Implementation Plan (SIP), which establishes the state strategy for attaining the national ambient air quality standards for ozone in the South Coast Air Basin by 2010 as required by federal law, directs staff to develop emission control regulations specifically for spark-ignition engines below 25 horsepower;

WHEREAS, it became evident during the SIP's development that reducing emissions of Oxides of Nitrogen (NOx) and Reactive Organic Compounds (ROG), including hydrocarbons (HC), from off-road engines and equipment operating within the state is imperative;

WHEREAS, in 1990, the Board originally approved regulations to control exhaust emissions from small off-road engines below 25 horsepower (19 kilowatts);

WHEREAS, manufacturers have requested that ARB harmonize with the federal power designation of kilowatt for small off-road engines;

WHEREAS, the existing program divides the small off-road engine into 3 categories based on displacement. The first category is 0-65 cubic centimeters (cc), inclusive, and represents handheld equipment. The other two categories are >65 - <225 cc, and >225 cc, and represent nonhandheld equipment;

WHEREAS, manufacturers have requested the 65 cc limit be raised to 80 cc to meet power demand;

WHEREAS, in 2000, the U.S. EPA promulgated new HC+NOx emission standards for small engines under 50 cc, which become more stringent than ARB's standards in 2005;

WHEREAS, recent test data have shown that exhaust emissions from small off-road engines can be significantly reduced with the addition of a catalyst;

WHEREAS, the proposed amendments to existing California 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 testing requirements, while still maintaining the emission reduction benefits of the current California program;

WHEREAS, the existing program does not explicitly control evaporative emissions associated with small off-road engines;

WHEREAS, test data have shown that evaporative emissions from small off-road engines can be significantly reduced with the use of carbon canisters and low permeation fuel tanks and fuel hoses;

WHEREAS, compliance with, and promotion of, optional emission standards may aid engine and equipment manufacturers in their marketing of less-polluting products, thus harnessing competitive forces to spur research and development of cleaner technology;

WHEREAS, the existing program includes regulations and procedures for emission control labels, warranties, enforcement procedures, and compliance testing necessary to adequately enforce the exhaust emission standards and test procedures;

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

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, 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 problems in the United States;

Exhaust and evaporative emissions from small off-road engines are a significant source of air pollution;

To meet Federal and California Clean Air Act emission reduction requirements, ARB must continue to seek proportional and incremental reductions from mobile sources, including small off-road engines;

Cost-effective control technologies are available that can significantly reduce exhaust and evaporative emissions from small off-road equipment and engines;

Adoption of procedures in closer alignment with the U.S. EPA will simplify the process of certification for industry;

Allowing industry to voluntarily certify engines to cleaner optional emission standards could aid in the purchase of lower emitting engines by consumers and aid in reducing emissions further;

WHEREAS, the Board further finds that:

The small off-road engine exhaust and evaporative regulations, procedures, and compliance programs are necessary to adequately enforce the emissions standards, and will independently help to reduce emissions from such engines;

The regulations establish uniform, consistent and reasonable emission standards for small off-road engines and associated equipment;

The regulations would have no adverse impact on the environment;

Adoption of the exhaust and evaporative standards and test procedures would result in a reduction of approximately 22 tons per day of combined HC and NO<sub>x</sub> emissions statewide in 2010, beyond the current ARB program addressing emissions from these engines;

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 regulatory action will have some impact, although not significant, on small businesses that buy and sell lawn and garden equipment;

The cost effectiveness of control beyond the current ARB program would range from \$0.20 to \$4.30 per pound of HC + NO<sub>x</sub> reduced for equipment such as lawn mowers and generators;

The cost effectiveness of evaporative control would range from \$1.71 to \$6.21 per pound of HC reduced for equipment such as string trimmers and blowers;

The cost effectiveness values above are similar to the values associated with other control measures adopted by the Board;

The amendments to the small off-road engine regulations are necessary, cost-effective, and technologically feasible to carry out the purposes of the state and federal clean air laws;

Catalysts have been used to control exhaust emissions from engines used in a variety of applications safely. These applications include forklifts, generators, and handheld equipment such as hedge and line trimmers, chainsaws, blowers, and edgers;

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 the adoption of the following sections of title 13, California Code of Regulations, and the documents incorporated by reference therein: chapter 15, Off-Road Vehicles and Engines Pollution Control Devices, article 1, Evaporative Emission Requirements for Off-Road Equipment, sections 2750 through 2773, and the incorporated "Small Off-Road Engine Evaporative Test Procedures, TP-901 and TP-902" and "Small Off-Road Engine Evaporative Emissions Control System Certification Procedures, CP-901 and CP-902", chapter 9 , Off-Road Vehicles and Engines Pollution control Devices, article 1, Small Off-Road Engines, sections 2405.1, 2405.2, and 2405.3, and the "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines"; and amendment of the following 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, Small Off-Road Engines, sections 2400, 2401, 2403, 2404, 2405, 2407, 2408, and 2409, and the incorporated "California Exhaust Emission Standards and Test Procedures for 1995 and later Small Off-Road Engines, as last amended January 28, 2000, all as set forth in the attachments to the Initial Statement of Reasons, and as set forth in Attachment A hereto, with the modifications described in Attachment B 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 30 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 adopted and amended herein will not cause California small off-road engine 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 hereby determines that pursuant to Title II, section 209(e)(2) of the federal Clean Air Act, as amended in 1990, that the emission standards and other requirements related to the control of emissions adopted as part of these regulations are, in the aggregate, at least as protective of public health and welfare as applicable federal standards, that California needs the adopted standards to meet compelling and extraordinary conditions, and that the adopted standards and accompanying enforcement procedures are consistent with the provisions of section 209;

BE IT FURTHER RESOLVED that the Board directs the Air Resources Board staff to:

Pursuant to the determination set forth above, to file a request for authorization from the United States Environmental Protection Agency pursuant to section 209(e)(2) of Title II of the federal Clean Air Act as amended in 1990.

I hereby certify that the above is a true and correct copy of Resolution 03-24, as adopted by the Air Resources Board.

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Stacey Dorais, Clerk of the Board

Resolution 03-24

September 25, 2003

Identification of Attachment A to the Resolution

- ATTACHMENT A-1: Proposed Amendments to the Exhaust Emission Regulation
- ATTACHMENT A-2: Proposed Amendments to the Exhaust Emission Test Procedures
- ATTACHMENT A-3: Proposed Off-Road Equipment Evaporative Emission Regulation
- ATTACHMENT A-4: Proposed Evaporative Emission Test Procedures
- ATTACHMENT A-5: Proposed Evaporative Emission Certification Procedures

Identification of Attachment B to the Resolution

- ATTACHMENT B: Staff's Suggested Changes to the Original Proposal (distributed at the Board hearing on September 25, 2003).