

State of California
Environmental Protection Agency

AIR RESOURCES BOARD

PROPOSAL TO CONSIDER THE ADOPTION OF AMENDMENTS TO
THE LOW-EMISSION VEHICLE REGULATIONS, INCLUDING
PARTICULATE STANDARDS FOR GASOLINE VEHICLES, MORE
STRINGENT EMISSION STANDARDS FOR FUEL-FIRED HEATERS,
AND ADMINISTRATIVE REVISIONS

FINAL STATEMENT OF REASONS

July 2002

State of California
Environmental Protection Agency
AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Response**

**PUBLIC HEARING TO CONSIDER THE ADOPTION OF AMENDMENTS TO THE
LOW-EMISSION VEHICLE REGULATIONS, INCLUDING PARTICULATE
STANDARDS FOR GASOLINE VEHICLES, MORE STRINGENT EMISSION
STANDARDS FOR FUEL-FIRED HEATERS, AND ADMINISTRATIVE REVISIONS**

Public Hearing Date: November 15, 2001
Agenda Item No.: 01-9-2

I. GENERAL

In this rulemaking, the Air Resources Board (ARB or Board) is adopting amendments to the California Low-Emission Vehicle II (LEV II) regulations. These amendments include the following primary elements:

Requiring Otto-cycle (gasoline) vehicles to meet particulate matter standards that currently only apply to diesel vehicles;

Requiring bi-fuel, flexible fuel or dual-fuel vehicles to certify to super-ultra-low-emission vehicle (SULEV) standards when operating on both gasoline and the alternative fuel in order to qualify for partial zero-emission vehicle credits; and

Incorporation of a number of administrative amendments to ease the certification effort for manufacturers.

The rulemaking was initiated by the September 28, 2001 publication of a notice for a November 15, 2001 public hearing to consider the proposed amendments. A Staff Report: Initial Statement of Reasons (the Staff Report) was also made available for public review and comment starting September 28, 2001. The Staff Report, which is incorporated by reference herein, describes the rationale for the proposal. The text of the proposed amendments to title 13, California Code of Regulations (CCR) sections 1960.1, 1960.5, 1961 and 1962 was included as an Appendix to the Staff Report. These documents were also posted on the ARB's Internet site for the rulemaking at: <http://www.arb.ca.gov/regact/levii01/levii01.htm>. Also posted on the internet site were the proposed amendments to five ARB documents which are or were proposed to be incorporated by reference in the regulations listed above:

"California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," which is incorporated by reference in section 1961(d);

“California Non-Methane Organic Gas Test Procedures,” which is incorporated by reference in the “California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles”;

“Guidelines for Certification of 1983 and Subsequent Model-Year Federally-Certified Light-Duty Motor Vehicles for Sale in California,” which is incorporated by reference in section 1960.5(c);

“California Exhaust Emission Standards and Test Procedures for 2003 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes” (the ZEV Standards and Test Procedures), which is incorporated in section 1962(h); and

“Guidelines for Certification of 2003 and Subsequent Model-Year Federally-Certified Light-Duty Motor Vehicles for Sale in California,” a proposed new document to be incorporated by reference in section 1960.5(c).

On November 15, 2001, the Board conducted the public hearing, at which it received written and oral comments. At the conclusion of the hearing, the Board adopted Resolution 01-51, in which it approved the originally proposed amendments with various editorial corrections and two significant modifications: (1) eliminating the proposed amendments to the standards applicable to the fuel-fired heaters used in zero-emission vehicles, and (2) amending the new fleet average non-methane organic gas (NMOG) phase-in requirements for vehicles produced by independent low volume manufacturers – manufacturers selling between 4,500 and 10,000 vehicles in California each year. These modifications had been suggested by staff in a 17-page document entitled “Staff’s Suggested Modifications to the Original Proposal” that was distributed at the hearing and was Attachment G to the Resolution. Attachment G showed excerpts of the originally proposed amendments to the regulations and incorporated documents, with the text of all suggested modifications clearly identified. In accordance with section 11346.8 of the Government Code, the Resolution directed the Executive Officer to incorporate the modifications into the proposed regulatory text, with such other conforming modifications as may be appropriate, and to make the modified text available for a supplemental comment period of at least 15 days. He was then directed either to adopt the amendments with such additional modifications as may be appropriate in light of the comments received, or to present the regulations to the Board for further consideration if warranted in light of the comments.

The text of all of the modifications to the originally proposed amendments to the regulations and incorporated documents was made available for a supplemental 15-day comment period by issuance of a “Notice of Public Availability of Modified Text.” This Notice, and a copy of the Resolution 01-51 and the Attachment G document entitled “Staff’s Suggested Modifications to the Original Proposal,” were mailed on

December 14, 2001 to all parties identified in section 44(a), title 1, CCR, and to other persons generally interested in the ARB's rulemaking concerning motor vehicle emission standards.¹ The "Notice of Public Availability of Modified Text" gave the name, telephone and fax number of the ARB contact person from whom interested parties could obtain the complete texts of the two incorporated documents which would be affected by the modifications to the original proposal, with all of the modifications clearly indicated.

Two comments were received during the supplemental comment period that ran from December 14, 2001 to January 4, 2002. After considering these comments, the Executive Officer issued Executive Order G-01-002, adopting the amendments to CCR, title 13, and amending or adopting the incorporated documents.²

This Final Statement of Reasons (FSOR) updates the Staff Report by identifying and providing the rationale for the modifications made to the originally proposed regulatory text. The FSOR also contains a summary of the comments the Board received on the

¹ Due to a staff mix-up, the version of the modified text that was made available with the 15-day notice was a slightly different earlier draft rather than the exact modified text that had been made available at the hearing and approved by the Board. The Final Regulation Order reflects all of the modifications the Board had approved. The only differences between the finally adopted text and the version distributed with the 15-day notice are:

(1) in the Final Regulation Order, § 1961(b)(1)(A): "or independent low volume manufacturer" is added to the last line before the table to make clear that the table does not apply to such manufacturers. This simply makes the text consistent with the amendments to § 1961(b)(1)(D), which set forth special new phase-in requirements for independent low volume manufacturers. The same change is made to Section I.E.2.1.1 in the incorporated California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles."

(2) In § 1961(b)(1)(E): a heading is added to the subsection; the same modification is made to Section I.E.2.1.5 of the incorporated Test Procedures.

(3) In § 1961(b)(2), second line: "and" is changed to "or" to improve syntax; the same change is made to Section I.E.2.2.

(4) In § 1962, subsection (e) is relettered subsection (h) to reflect amendments approved by the Office of Administrative Law May 24, 2002.

(5) In § 1962(h), a change updates the reference to the amended incorporated document; since the proposal has always included amendments to that incorporated document, it has been evident to the public that the ARB has intended for the last amended version of document to be the document incorporated by reference in the regulation.

² The finally adopted amendments to the ZEV Standards and Test Procedures also included adding additional text in Section C.2.5 ("Changes in Small Volume, Independent Low Volume, and Intermediate Volume Manufacturer Status") to track identical language that had been added in amendments approved by OAL June 24, 2002 (OAL Regulation Action No. 02-0510-03S) to section 1962, title 13, CCR, the regulation that incorporates by reference the ZEV Standards and Test Procedures. Since the amendments to section 1962 have already been adopted and approved by OAL, adding identical language to the incorporated document to assure consistency is a nonsubstantial change.

proposed regulatory amendments during the formal rulemaking process and the ARB's responses to those comments.

Incorporation of Test Procedures and Federal Regulations. The five amended and new test procedures are incorporated by reference in CCR, title 13, sections 1960.5(c), 1961(d) and 1962(e). These test procedure documents in turn incorporate certification test procedures adopted by the U.S. Environmental Protection Agency (U.S. EPA) and contained in 40 Code of Federal Regulations (CFR) Part 86.

California Code of Regulations, title 13, sections 1960.5(c), 1961(d) and 1962(e) identify the incorporated ARB documents by title and date. The ARB documents are readily available from the ARB upon request and were made available in the context of this rulemaking in the manner specified in Government Code section 11346.5(b). The CFR is published by the Office of the Federal Registrar, National Archives and Records Administration, and is therefore reasonably available to the affected public from a commonly known source.

The test procedures are incorporated by reference because it would be impractical to print them in the CCR. Existing ARB administrative practice has been to have the test procedures incorporated by reference rather than printed in the CCR as these procedures are highly technical and complex. They include the "nuts and bolts" engineering protocols required for certification of motor vehicles and have a very limited audience. Because the ARB has never printed complete test procedures in the CCR, the affected public is accustomed to the incorporation format. The ARB's test procedures as a whole are extensive and it would be both cumbersome and expensive to print these lengthy, technically complex procedures with a limited audience in the CCR. Printing portions of the ARB's test procedures that are incorporated by reference would be unnecessarily confusing to the affected public.

The test procedures incorporate portions of the CFR because the ARB requirements are substantially based on the federal emission regulations. Manufacturers typically certify vehicles to a version of the federal emission standards and test procedures which has been modified by state requirements. Incorporation of the federal regulations by reference makes it easier for manufacturers to know when the two sets of regulations are identical and when they differ. Each of the incorporated CFR provisions are identified by date in the ARB test procedure documents.

Fiscal Impacts. The Board has determined that this 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 non-discretionary costs or savings to local agencies.

Consideration of Alternatives. The amendments proposed in this rulemaking were the subject of discussions involving staff and the affected motor vehicle manufacturers.

The Board has determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

II. MODIFICATIONS TO THE ORIGINAL PROPOSAL

A. RETENTION OF CURRENT FUEL-FIRED HEATER REQUIREMENTS

The ARB's standard for ZEVs provides that the use of a fuel-fired heater on a vehicle does not preclude certification of the vehicle as a ZEV if (i) the fuel-fired heater cannot be operated at ambient temperatures above 40°F, (ii) the heater is demonstrated to have zero fuel evaporative emissions under any and all possible operational modes and conditions, and (iii) the emissions of any pollutant from the fuel-fired heater when operated at an ambient temperature between 68°F and 86°F do not exceed the emission standard for that pollutant for a ULEV. These requirements were adopted in the original LEV I rulemaking in 1990. At that time, the ULEV standards were the next most stringent set of standards after the ZEV standard.

With the adoption of the LEV II regulations in 1998-1999, the most stringent set of emission standards after the ZEV standard will be the SULEV standard, which is 75 percent cleaner than the ULEV standard. In this rulemaking, staff had originally proposed an amendment under which the fuel-fired heater on a ZEV would have to meet the SULEV standards when operating at 40°F, to ensure the lowest possible emissions from ZEVs and to better reflect actual operating temperatures, consistent with the ZEV concept. To ascertain the viability of this proposal, staff provided industry with the revised fuel-fired heater proposed requirements and requested their comments prior to issuing the 45-day notice. At that time, the only comment received was a request that the proposed implementation date – the 2003 model year – be delayed until the 2005 model year. This change was incorporated into the final proposal. Subsequent to the 45-day notice, however, industry informed staff via informal comments³ that it was neither technologically nor economically feasible to meet the new requirements in that timeframe. Since staff had relied on industry's initial positive assessment, it had not performed tests of its own. Consequently, staff recommended that this element of the rulemaking be eliminated, and the Board concurred. This issue will be revisited at such time that staff can perform additional tests and work with suppliers to evaluate further emission reductions from these devices.

B. REVISIONS TO THE FLEET AVERAGE NMOG REQUIREMENTS FOR INDEPENDENT LOW VOLUME MANUFACTURERS

³ The informal comments received were via telephone conversations and a meeting with automobile and fuel-fired heater industry representatives. The comments and information presented to staff during these communications were never submitted to the Board as part of the formal rulemaking.

One of the regulations being amended in this rulemaking – section 1961, title 13, CCR – establishes the fleet average NMOG requirements for manufacturers of passenger cars and light-duty trucks (LDTs). All manufacturers other than small volume manufacturers (SVMs) are subject to the annually declining fleet average NMOG requirements in section 1961(b)(1)(A), title 13, CCR. SVMs are subject to a less stringent fleet average NMOG requirement – 0.075 gram per mile (g/mi) for 2001 and subsequent model passenger cars and LDTs from 3751-5750 lbs. loaded vehicle weight (LVW), 0.100 g/mi for LDTs having a LVW of 5751 lbs. or more in the 2001-2006 model years, and 0.075 g/mi for such LDTs in the 2007 and subsequent model years.

In a comment letter, Porsche Cars of North America, Inc. (Porsche) requested modifications to the new fleet average NMOG phase-in requirements for independent low volume manufacturers as defined in section 1900(b)(21), title 13, CCR. This is a new manufacturer category created by the recent 2001 ZEV Amendments, and includes manufacturers selling between 4,500 and 10,000 vehicles in California each year, including the sales of any other manufacturer having 10 percent or more common ownership. Porsche pointed out that it is one of very few remaining small manufacturers that has not been acquired wholly or in part by a large volume manufacturer. Independent niche manufacturers like Porsche have only a few car lines, and this makes meeting the fleet average NMOG standard by averaging across model lines difficult. A manufacturer owned in whole or part by another manufacturer typically is able to acquire credits from the other manufacturer. But this is not the case for an independent manufacturer that does not have such ownership ties.

Porsche's projections are that it will lose its SVM status effective with the 2005 model year, based on 1991-2001 model year sales exceeding the 4,500 SVM threshold (See section 1961(b)(1)(C)2., title 13 CCR). At that time, Porsche would be subject to a 2005 model year fleet average NMOG requirement of 0.049 g/mi for passenger cars and 0.076 g/mi for LDTs, forcing it to produce nothing but vehicles meeting the ULEV standard if it has only three car lines at that time. But while its sales are expected to exceed the SVM threshold and could conceivably approach 10,000 vehicles per year by the end of the decade, Porsche would still be a very small manufacturer relative to all other companies competing in the California market when ownership ties are taken into account.

In light of these considerations and the unique status of independent low volume manufacturers, the Board modified the proposed amendments to add a provision in section 1961(b)(1)(D), title 13, CCR on applicability of the fleet average NMOG requirements to this category of manufacturers. Under the modification, an independent low volume manufacturer is subject to the same fleet average NMOG requirements as an SVM during the 2001-2006 model years. In the 2007 and subsequent model years, an independent low volume manufacturer will be subject to a more stringent fleet average NMOG requirement of 0.060 g/mi for passenger cars and LDTs from 3751-5750 lbs. LVW, and 0.065 g/mi for LDTs having a LVW of 5751 lbs. or more. This appropriately positions the requirements for an independent low volume manufacturer in-between the requirements for an SVM and a large volume manufacturer.

III. SUMMARY OF COMMENTS AND AGENCY RESPONSE

The Board received three written comments during the 45-day comment period prior to and/or at the November 15, 2001 hearing, one from Porsche and two from the Alliance of Automotive Manufacturers (the Alliance). At the hearing, the Board received oral testimony from the Alliance and Ford Motor Company.

Two e-mail messages were transmitted during the supplemental comment period to the e-mail address set up for this rulemaking. Neither message pertained to the modified regulatory language that was made available for comment, nor to the rulemaking more generally. One message, from the driver on an electric vehicle, opposed reducing the requirement for more low and zero-emission vehicles in the state. This was likely directed to the ARB's 2001 zero-emission vehicle amendments, which were originally transmitted to the Office of Administrative Law December 7, 2001. The other email message supported revisions to Assembly Bill 71 as it pertains to the use of gasoline hybrid vehicles in "high occupancy vehicle" lanes on freeways. These comments are accordingly not addressed in this FSOR.

A. COMMENTS PRESENTED PRIOR TO OR AT THE HEARING

1. **Comment:** It will be extremely difficult for an independent low volume manufacturer to meet current fleet average NMOG requirements due to a very limited number of test groups produced by the manufacturer. Therefore, the ARB is requested to adopt new fleet average non-methane organic gas fleet average requirements specifically for independent low volume manufacturers to reflect their limited number of test groups. (Porsche)

Agency Response: We agree with the commenter, and accordingly have modified the fleet average NMOG requirements applicable to independent low volume manufacturers as described in Section II above.

2. **Comment:** California phases in the LEV II exhaust emission standards at a rate of 25/50/75/100% during the 2004-2007 model years. Federally, both the exhaust and evaporative emission standards (Tier 2) are phased in using the identical schedule. The lone exception to this phase-in schedule is California's evaporative emission standards adopted as part of the LEV II rulemaking. These are phased in at a rate of 40/80/100% in the three model years during the 2004-2006 model years. This is inconsistent with the recent effort between ARB and U.S. EPA to harmonize and simplify the evaporative emission test procedure. Changing the LEV II evaporative emissions phase-in schedule to make it identical to the four-year federal Tier 2 and California LEV II exhaust emissions schedules would substantially reduce the cost and complexity of complying with the near-zero evaporative emission standards and would increase the uniformity of California and Federal regulations. (Alliance and Ford)

Agency Response: This rulemaking is solely directed towards the exhaust emission standards and test procedures in sections 1960.1 and 961, title 13, CCR, and the AB 965 program in section 1960. The commenters are asking for a substantial modification to the phase-in schedule for the evaporative emission standards in section 1976(b)(1)(F), Note 3 to table. As such, we do not believe that the requested modification is within the scope of the notice as required by Government Code section 11346.8(c). The ARB will address the issue of LEV II evaporative emissions phase-in schedule separately from this rulemaking.