

## TITLE 13. CALIFORNIA AIR RESOURCES BOARD

### NOTICE OF PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE VERIFICATION PROCEDURE, WARRANTY AND IN-USE COMPLIANCE REQUIREMENTS FOR IN-USE STRATEGIES TO CONTROL EMISSIONS FROM DIESEL ENGINES

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 Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines.

DATE: December 11, 2003

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency  
Air Resources Board  
Central Valley Auditorium  
1001 "I" Street  
Sacramento, CA 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., December 11, 2003, and may continue at 8:30 a.m., December 12, 2003. This item may not be considered until December 12, 2003. Please consult the agenda for the meeting, which will be available at least 10 days before December 11, 2003, to determine the day on which this item will be considered.

If you have special accommodation or language needs, please contact the ARB's Clerk of the Board at (916) 322-5594 or [sdorais@arb.ca.gov](mailto:sdorais@arb.ca.gov) as soon as possible. TTY/TDD/Speech-to-Speech users may dial 7-1-1 for the California Relay Service.

### **INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW**

**Sections Affected:** Proposed amendments to sections 2701, 2702, 2703, 2704, 2705, 2706, and 2707, title 13, California Code of Regulations (CCR).

**Background:** In 1998 the Air Resources Board (ARB or Board) identified diesel particulate matter emissions from diesel-fueled engines as a toxic air contaminant (title 17, CCR, section 93000). The ARB adopted the Diesel Risk Reduction Plan (DRRP or Plan) in 2000, which established a goal of reducing emissions and the resultant health risk from virtually all diesel-fueled engines and vehicles within the State of California by the year 2020. The Plan envisioned that

diesel particulate matter emissions should be reduced by 75 percent in 2010 and 85 percent in 2020. To achieve those goals, the Plan identified various methods including more stringent standards for all new diesel-fueled engines and vehicles, the use of diesel emission control strategies on in-use engines, and the use of low-sulfur diesel fuel.

To carry out the component of the DRRP that concerns implementation of in-use emission control strategies, ARB staff developed a procedure to verify emissions reductions achieved by strategies, which also includes warranty and in-use compliance requirements (the Procedure). The Board approved the Procedure at the May 16, 2002 public hearing with various modifications. The modifications to the Procedure were distributed with the Notice of Public Availability of Modified Text, released on January 29, 2003. The modifications and the rationale behind them are described in that notice.

Both during and after the periods of public comment, staff has maintained a dialogue with stakeholders. As a result of this on-going dialogue, staff determined that changes could be made to improve the Procedure and better enable ARB to meet the goals of the Plan. The proposed changes are briefly described in the next section.

**Proposed Amendments:** Summarized below are the four most significant proposed amendments to the Procedure. Additional proposed amendments include minor definitional changes and clarifications, which are shown in the Initial Statement of Reasons and the attachments thereto.

- (1) Warranty requirements: In developing the warranty requirements for verification, staff tried to strike a balance between the interests of the end-users and the manufacturers of emission control systems. Sometimes, the views of the two groups can seem to be almost diametrically opposed. Nevertheless, staff recognizes that it is imperative that Californians' exposure to diesel particulate matter be reduced to the greatest extent possible and that a viable warranty is necessary to achieve this goal. Achieving this goal is in jeopardy because the manufacturers of diesel emissions control strategies perceive that the current warranty requirement presents them with too great a liability to participate in the verification process, and end-users perceive it as providing insufficient consumer protection.

Subsequent to the approval of the Procedure by the Board, manufacturers of diesel emission control strategies began voicing significant concerns to staff regarding the Procedure's warranty requirements. Although manufacturers' concerns over the warranty were lessened by various clarifications made by staff, they were not completely resolved. Full resolution will require that the Board consider amendments to the Procedure. The mandatory warranty for verified diesel emission control systems currently includes coverage of damage to the engine and vehicle or equipment that is proximately caused

by the control system. It is primarily the inclusion of the vehicle or equipment in the warranty coverage that has prevented manufacturers of emission control systems from agreeing to participate in the verification process. Their primary concern is the potential for end-users to make spurious claims with the goal of obtaining new vehicles or equipment.

The California Trucking Association (CTA), representing end-users, has repeatedly stated that the duration of warranty coverage is insufficient. Even if coverage of vehicle/equipment damage is removed, staff points out that the warranty affords far more protection than that required under the United States Environmental Protection Agency's (U.S. EPA) Urban Bus Retrofit/Rebuild program, which was another mandatory emission control effort directed at in-use fleets. As with warranties offered by engine manufacturers, the U.S. EPA's required warranty did not include coverage of vehicle/equipment damage. In addition, it has been staff's experience that the potential for a verified emission control strategy to cause non-engine related damage is minimal. In the unlikely event that such damage should occur, however, all the standard avenues for relief from secondary damages remain intact. Therefore, even without coverage of vehicle/equipment damage, staff does not believe that end-users would be left without relief. Moreover, there will be no cost impacts associated with the proposed amendment.

In an effort to achieve the goals of the DRRP while still maintaining a reasonable degree of consumer protection, staff therefore proposes that mandatory warranty coverage extend only to the engine, and not to the vehicle or equipment with which the control system is used.

- (2) NO<sub>2</sub> Limit: Another component of the Procedure in need of amendment relates to the nitrogen dioxide (NO<sub>2</sub>) emission limit. The Procedure currently states that beginning on January 1, 2004, post-control NO<sub>2</sub> emissions from an engine using a diesel emission control strategy must not exceed 20 percent of the total baseline (pre-control) NO<sub>x</sub> emissions. After that date, systems that do not meet the limit will not be verified and may not be installed. At present, the effective date is only months away and no Level 3 systems have been verified that meet the NO<sub>2</sub> limit. Therefore, unless new compliant systems are verified soon, California stands to lose valuable early field experience and PM reductions that can be gained prior to the implementation of proposed rules that would require installation of a verified diesel emission control strategy on certain vehicle fleets. Furthermore, significant questions have arisen surrounding the accuracy of the assumptions that led to selection of the 20 percent limit and the nature of engine-out NO<sub>2</sub> emissions. For those reasons, staff proposes that the effective date of the NO<sub>2</sub> limit be changed from January 1, 2004 to January 1, 2007. The three-year delay should give staff the time it needs to gather additional data and develop a better understanding of the questions

surrounding the NO<sub>2</sub> issue. It will also give manufacturers more time for product development aimed at reducing NO<sub>2</sub> emissions. To prevent possible negative side-effects of higher NO<sub>2</sub> emissions, the delay ends before widespread implementation of diesel emission control strategies is expected to occur. The delay also eliminates the potential for economic impact arising from the amendments.

- (3) Proposed Verification Testing Protocol: Section 2702(b) of the Procedure describes the requirements for the Proposed Verification Testing Protocol that the applicant must prepare. One of the subsections of the protocol requires that the applicant describe its system's principles of operation. Staff must develop a good understanding of the system for several reasons, principal among them being the need to determine whether additional analyses for other harmful pollutants are necessary. The Procedure currently lacks a formal process for handling those control systems that appear to rely on principles not generally understood or accepted by the scientific world. To fill that need, staff proposes that the applicant must demonstrate that its product relies on sound principles of science and engineering to achieve emission reductions. If the Executive Officer determines that the applicant has not made a satisfactory demonstration after two attempts, the application may be suspended. If an application has been suspended, it may only be reactivated at the discretion of the Executive Officer. Staff also proposes that if at any point in the verification process the Executive Officer has reason to doubt the scientific or engineering soundness of a product, the Executive Officer can require the applicant to provide further substantiation or risk suspension of the application or revocation of an existing verification.
- (4) Harmonization of Durability Requirements: The Procedure requires that the applicant conduct emission reduction testing with the diesel emission control strategy both before and after the service accumulation period. The verification protocol used to support the U.S. EPA Voluntary Diesel Retrofit Program calls for testing of both a pre-conditioned (or "de-greened") unit and an aged unit at the same point in time, with testing of a single unit at two different times (before and after service accumulation) left as an option. The primary advantages of the first option are that it reduces the cost of testing and minimizes test condition variability to the extent that the two units are indeed identical. To further harmonize with U.S. EPA's program and to offer more flexibility to applicants, staff proposes that the applicant be allowed to request that the Executive Officer consider the testing of two identical units, one that has been pre-conditioned and another that has completed the service accumulation period. In reviewing the request, the Executive Officer may consider all relevant information, such as whether a system causes any changes in engine operation over time and the quality of the evidence the applicant can provide to support that the two units are identical.

## **COMPARABLE FEDERAL REGULATIONS**

The U.S. EPA has published a draft document, "General Verification Protocol for Diesel Exhaust Catalysts, Particulate Filters, and Engine Modification Control Technologies for Highway and Nonroad Use Diesel Engines," but has not promulgated formal regulations for this verification protocol. This verification protocol is intended to support the voluntary retrofit programs initiated by the U.S. EPA, while the staff's proposal is to support the ARB's Diesel Risk Reduction Plan.

## **AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS**

The ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the environmental and economic impacts of the proposal.

Copies of the ISOR and the full text of the proposed regulatory language may be accessed on ARB's web site listed below, or may be obtained from ARB's Public Information Office, Environmental Services Center, 1001 "I" Street, First Floor, Sacramento, CA 95814, (916) 322-2990, at least 45 days prior to the scheduled hearing (December 11, 2003).

Upon its completion, the Final Statement of Reasons (FSOR) will also be available and copies may be requested from the agency contact persons in this notice, or may be accessed on the web site listed below.

Inquiries concerning the substance of the proposed amendments may be directed to the designated agency contact persons, Mr. Paul Henderick, Air Resources Engineer, Retrofit Assessment Section, at (626) 350-6440, or Mr. Scott Rowland, Manager, Retrofit Assessment Section, at (626) 575-6972.

Further, the agency representative and designated back-up contact persons to whom non-substantive inquiries concerning the proposed administrative action may be directed are Artavia Edwards, Manager, Board Administration & Regulatory Coordination Unit, (916) 322-6070, or Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board staff has compiled a record for this rulemaking action, which includes all information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

If you are a person with a disability and desire to obtain this document in an alternative format, please contact the ARB's Clerk of the Board at (916) 322-5594 or [sdorais@arb.ca.gov](mailto:sdorais@arb.ca.gov) as soon as possible. TTY/TDD/Speech-to-Speech users may dial 7-1-1 for the California Relay Service.

This notice, the ISOR, and all subsequent regulatory documents, including the FSOR when completed, will be available on the ARB Internet site for this rulemaking at <http://www.arb.ca.gov/regact/verpro03/verpro03.htm>.

### **COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED**

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by public agencies, private persons and businesses in reasonable compliance with the proposed regulations are presented below.

Pursuant to Government Code sections 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action will not create costs or savings, 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 savings to State or local agencies.

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. The ARB is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

The Executive Officer has made an initial determination that the proposed regulatory action will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or businesses directly affected.

In accordance with Government Code section 11346.3, 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. An assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

The Executive Officer has also determined, pursuant to Government Code section 11346.5(a)(3)(B), that the proposed regulatory action will not affect small businesses because participation in the Procedure is purely voluntary with respect to any business. There are no cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the ARB's Executive Officer has found that the reporting requirements of the

regulation which apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

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 to affected private persons than the proposed action.

### **SUBMITTAL OF COMMENTS**

The public may present comments relating to this matter orally or in writing at the hearing, and in writing or by e-mail before the hearing. To be considered by the Board, written submissions must be received by **no later than 12:00 noon, December 10, 2003** and addressed to the following:

Postal Mail is to be sent to:

Clerk of the Board  
Air Resources Board  
1001 "I" Street, 23rd Floor  
Sacramento, California 95814

Electronic mail is to be sent to: [verpro03@listserv.arb.ca.gov](mailto:verpro03@listserv.arb.ca.gov) and received at the ARB **no later than 12:00 noon, December 10, 2003**.

Facsimile submissions are to be transmitted to the Clerk of the Board at (916) 322-3928 and received at the ARB **no later than 12:00 noon, December 10, 2003**.

The Board requests, but does not require, that 30 copies of any written statement be submitted at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The ARB encourages members of the public to bring to the attention of the staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

### **STATUTORY AUTHORITY AND REFERENCES**

This regulatory action is proposed under that authority granted in sections 39002, 39003, 39500, 39600, 39601, 39650-39675, 40000, 43000, 43000.5, 43011, 43013, 43018, and 43105, 43600, 43700 of the Health and Safety Code. This action is proposed to implement, interpret and make specific sections 39650-39675, 43000, 43009.5, 43013, 43018, 43101, 43104, 43105, 43106, 43107, and 43204-43205.5 of the Health and Safety Code and Title 17 California Code of Regulations section 93000.

## **HEARING PROCEDURES**

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 non-substantial 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, 1001 "I" Street, Sacramento, CA 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

Catherine Witherspoon  
Executive Officer

Date: October 14, 2003

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs see our Web-site at [www.arb.ca.gov](http://www.arb.ca.gov).*