

## **TITLE 13. CALIFORNIA AIR RESOURCES BOARD**

### **NOTICE OF PUBLIC HEARING TO CONSIDER REGULATORY 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 (ARB or the Board) will conduct a public hearing at the time and place noted below to consider regulatory amendments to the Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines.

DATE: March 23, 2006

TIME: 9:00 a.m.

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

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., March 23, 2006, and may continue at 8:30 a.m., March 24, 2006. This item may not be considered until March 24, 2006. Please consult the agenda for the meeting, which will be available at least ten days before March 23, 2006, to determine the day on which this item will be considered.

If you have a disability-related accommodation need, please go to <http://www.arb.ca.gov/html/ada/ada.htm> for assistance or contact the Americans with Disabilities Act Coordinator at (916) 323-4916. If you are a person who needs assistance in a language other than English, please contact the Bilingual Coordinator at (916) 324-5049. Teletypewriter/Telecommunications Device for Deaf/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 title 13, California Code of Regulations (CCR), sections 2702, 2703, 2704, 2706, 2707, and 2709.

**Background:** In 1998, the ARB identified diesel particulate matter (PM) emissions as a toxic air contaminant (Title 17, CCR, section 93000). In 2000, the ARB adopted the Diesel Risk Reduction Plan (DRRP or Plan), 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 would 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.

Staff developed a verification procedure (Procedure) to ensure that effective emission control systems are available to reduce Californians' exposure to diesel PM. The Board adopted the Procedure at the May 16, 2002 Public Hearing. In accordance with the DRRP, the ARB has adopted and may in the future adopt regulations to require reduction of PM from in-use diesel vehicles through the application of verified, retrofitted diesel emission control strategies. These retrofit regulations specify levels of particulate matter reductions and the Procedure is used to designate strategies that ARB finds achieve specific levels of emission reductions and meet all other verification criteria.

The Procedure includes emissions test procedures, warranty requirements, and in-use compliance requirements. It also sets limits for secondary emissions from verified emission control systems. One common secondary emission is nitrogen dioxide (NO<sub>2</sub>). Some diesel emission control systems, while highly effective at reducing emissions of diesel PM, also increase emissions of NO<sub>2</sub>. NO<sub>2</sub> is classified as a criteria pollutant and has both federal and state ambient air quality standards. NO<sub>2</sub> emissions also contribute to formation of ozone and particulate nitrates. A limit for NO<sub>2</sub> emissions of 20 percent of the baseline oxides of nitrogen (NO<sub>x</sub>) emission level was adopted as part of the Procedure, effective in 2004.

In February 2004, the Board amended the Procedure. One of the key amendments was a three-year delay in the effective date of the NO<sub>2</sub> limit, to January 1, 2007. This was necessary because manufacturers were not able to meet the original 20 percent limit without sacrificing the robustness and breadth of applicability of their products. The purpose of the delay was to enable the continued implementation of efficient PM emission controls while staff reevaluated what level of NO<sub>2</sub> control was most appropriate and the potential impacts on air quality. This evaluation has been completed.

Staff concludes that most verified PM control devices remain unable to meet the NO<sub>2</sub> limit that begins next year. Therefore, if no change is made to the existing NO<sub>2</sub> limit, nearly all of the approved diesel particulate filters will lose their verifications on January 1, 2007. With few PM emission control devices available for installation on in-use diesel engines, ARB's Diesel Risk Reduction Plan would be stymied, and the health benefits of the plan would not be achieved.

**Proposed Amendments:** To assure implementation of the Diesel Risk Reduction Plan continues, staff is proposing amendments to the Procedure. The most significant change is to revise the NO<sub>2</sub> emission limit for verified emission control systems. The proposed amendments to the Procedure are summarized below. The actual regulatory language and explanations can be found in the Staff Report: Initial Statement of Reasons (ISOR) and the attachments thereto.

### 1. NO<sub>2</sub> Emission Limit

Staff proposes that the Board change the form of the NO<sub>2</sub> emission limit, and revise its stringency.

Staff's proposal would change the form of the NO<sub>2</sub> limit. Currently, the Procedure limits total tailpipe-out NO<sub>2</sub> emissions regardless of how much NO<sub>2</sub> is contributed by the engine. Staff's proposed change would limit the allowable increase in NO<sub>2</sub> emissions, not the total emissions level.

Beginning January 1, 2007, staff also proposes a revision to the NO<sub>2</sub> limit to allow a maximum increase of NO<sub>2</sub> emissions equivalent to 30 percent of the total baseline NO<sub>x</sub> emission level. Most of the currently verified filters would be able to meet this limit, and therefore would continue to be available for use in reducing diesel PM emissions. Beginning January 1, 2009, staff proposes that the maximum increase be reduced to 20 percent. Staff also proposes that the Board create verification classifications designated by "Plus" (e.g., Level 3 Plus) which signify early compliance with the 2009 limit and thus encourage the use of low-NO<sub>2</sub> controls where possible.

Staff's proposal will result in higher NO<sub>2</sub> emissions from retrofitted diesel engines relative to the current NO<sub>2</sub> limit. Modeling and analyses for Southern California 2010 indicate higher NO<sub>2</sub> emissions will increase peak ozone levels by about one percent. Microscale analyses for high exposure scenarios show that local ambient NO<sub>2</sub> concentrations will increase, but will not exceed the current ambient NO<sub>2</sub> standard.

Staff believes the benefits of avoiding hundreds of premature deaths due to continuing use of PM control devices that reduce PM emissions by up to 85 percent clearly outweigh the adverse health impact of a relatively small increase in ozone.

### 2. Additional Pre-Conditioning Requirements

Staff proposes additional pre-conditioning requirements for emission control systems whose NO<sub>2</sub> emissions may be influenced by the presence of soot and ash at the time of testing. The proposal covers pre-conditioning for the new and aged units in the original verification as well as units involved in the first-phase of in-use compliance testing. It includes requirements regarding filter condition, test cycles, duration of testing, test conditions, and backpressure. It also includes requirements regarding the test engine's condition and NO<sub>2</sub> emission level.

### 3. Other Proposed Amendments

Staff proposes a clarification to sections 2702(g) and (h) that not all listed conditions are required. The "and" in the list of sources would be changed to an "or". Staff proposes extending the reporting deadline specified in section 2707(c) by an additional two months. Staff also proposes adding a provision stating expressly that issuance of a verification does not release the applicant from complying with other applicable legal requirements.

## **COMPARABLE FEDERAL REGULATIONS**

There are no comparable federal regulations. The United States Environmental Protection Agency (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 federal 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. Also, the protocol does not regulate changes in emissions of NO<sub>2</sub> caused by emission control systems.

## **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. The report is entitled: Proposed Amendments to the Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines.

Copies of the ISOR and the full text of the proposed regulatory language in underline and strikeout format to allow for comparison with the existing regulations may be accessed on ARB's website listed below, or may be obtained from ARB's Public Information Office, Visitors and Environmental Services Center, 1001 "I" Street, First Floor, Sacramento, California 95814, (916) 322-2990, at least 45 days prior to the scheduled hearing on March 23, 2006.

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 website 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 by email to [phenderi@arb.ca.gov](mailto:phenderi@arb.ca.gov), or Ms. Shawn Daley, Manager, Retrofit Assessment Section, at (626) 575-6972, or by email to [sdaley@arb.ca.gov](mailto:sdaley@arb.ca.gov).

Further, the agency representative and designated back-up contact persons to whom non-substantive inquiries concerning the proposed administrative action may be directed are Ms. Artavia Edwards, Manager, Board Administration & Regulatory Coordination Unit, at (916) 322-6070, or by email to [aedwards@arb.ca.gov](mailto:aedwards@arb.ca.gov), or Ms. Alexa Malik, Regulations Coordinator, at (916) 322-4011, or by email to [amalik@arb.ca.gov](mailto:amalik@arb.ca.gov). The Board has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, the ISOR, and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB Internet site for this rulemaking at [www.arb.ca.gov/regact/verpro06/verpro06.htm](http://www.arb.ca.gov/regact/verpro06/verpro06.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. Participation in the Procedure is purely voluntary both in its current form and as amended under the proposed action. While it is true that participation in the verification process is voluntary and there is no prohibition on selling diesel emission control strategies in California that have not been verified by the ARB, the ARB has adopted and may in the future adopt regulations to requiring reductions of PM from in-use diesel vehicles through the application of verified, retrofitted diesel emission control strategies in specific situations. Entities subject to these retrofit requirements must use verified diesel emission control strategies to comply with these requirements. Consequently, these entities will only purchase systems from manufacturers that have obtained ARB's verification. In any event, the proposed regulatory action would make the requirements for verification less stringent than they are now, allowing for more systems to become verified and avoiding the loss of verifications by most currently-verified systems on January 1, 2007. Thus staff does not expect the proposal will result in adverse economic impacts.

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 or on representative private persons.

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 title 1, CCR, section 4, that the proposed regulatory action will not affect small businesses because participation in the Procedure is purely voluntary. There are no cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

The Executive Officer has also determined, pursuant to Government Code section 11346.5(a)(8), that the proposed regulation 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 because the proposed regulation will have no regulatory effect on business.

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 or that has otherwise been identified and brought to the attention of the board 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, March 22, 2006** 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: <http://listserv.arb.ca.gov/major/comm/email.php> and received at the ARB **no later than 12:00 noon, March 22, 2006**.

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, March 22, 2006**.

The Board requests, but does not require, that 30 copies of any written statement be submitted at least ten 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, 43105, 43600, 43700, and 43830.8 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, 43204-43205.5, and 43830.8 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, California 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

Catherine Witherspoon  
Executive Officer

Date: January 24, 2006