

## TITLE 13. CALIFORNIA AIR RESOURCES BOARD

### NOTICE OF PUBLIC HEARING TO CONSIDER ADOPTION OF REGULATORY AMENDMENTS TO THE CALIFORNIA HEAVY-DUTY VEHICLE INSPECTION PROGRAM AND PERIODIC SMOKE INSPECTION PROGRAM

The Air Resources Board (ARB) will conduct a public hearing at the time and place noted below to consider adoption of regulatory amendments to the California Heavy-Duty Vehicle Inspection Program (HDVIP) and Periodic Smoke Inspection Program (PSIP).

Date: December 11, 1997

Time: 9:30 a.m.

Place: Bay Area Air Quality Management District  
939 Ellis Street  
7th Floor Board Hearing Room  
San Francisco, California 94109

This item will be considered at a two-day meeting of the Board, which will commence at 9:30 a.m. on December 11, 1997 and may continue at 8:30 a.m. on December 12, 1997. This item may not be considered until December 12, 1997. Please consult the agenda for the meeting, which will be available at least 10 days before December 11, 1997, to determine the day on which this item will be considered.

### INFORMATIVE DIGEST OF PROPOSED ACTION/PLAIN ENGLISH POLICY STATEMENT OVERVIEW

**Sections Affected:** California Code of Regulations, title 13, sections 2180 through 2188, and sections 2190 through 2194.

**The existing HDVIP regulations.** The HDVIP regulations establish a program in which heavy-duty vehicles are tested by ARB inspectors at various roadside locations to identify vehicles that emit excessive smoke or have defective or tampered emission control systems. The opacity of smoke from diesel engines is measured in accordance with a “snap-acceleration” stationary vehicle test procedure that uses an electronic smokemeter and is based on the Society of Automotive Engineers (SAE) SAE J1243 procedure. The regulations require that smoke emissions from heavy-duty engines not exceed smoke standards of 55 percent opacity or 40 percent opacity, depending primarily on the year, make and model of the vehicle being tested. A visual inspection is also conducted. The owners of vehicles failing the smoke test or inspection are issued citations which require the timely repair of the vehicle and carry civil penalties ranging from \$300 to \$1800 per violation. The repair is documented by a “demonstration of correction” submitted to the ARB. Vehicle owners may appeal citations through the ARB's administrative hearing program, established in sections 60075.1 through 60075.47, title 17, California Code of Regulations.

The HDVIP regulations were adopted following a November 1991 hearing, in response to directives in Health and Safety Code section 44011.6, enacted in 1988 by Senate Bill (SB) 1997 (Stats. 1988, ch. 1544, Presley). The regulations became operative on November 21, 1991 and the program was actively enforced until October 15, 1993. During this time, the failure rate was reduced from 34 percent to 21 percent, resulting in an estimated 38 percent reduction in the number of excessively smoking trucks and buses operating in California. Segments of the trucking industry argued that the snap-acceleration test used in the HDVIP was unreliable and incorrectly failed clean trucks. At least four lawsuits were filed to challenge the J1243 procedure; all of the decisions to date have upheld use of the test.

On October 15, 1993 the ARB temporarily suspended enforcement of the HDVIP and redirected the staff to work on reformulated fuels issues. Around the same time, the State Legislature enacted Assembly Bill (AB) 584 (Stats. 1993, ch. 578, Cortese), which required that the test procedures used in the HDVIP “produce consistent and repeatable results” and stated that this requirement is satisfied by the adoption of the SAE J1667 test procedure that was then under development. AB 584 further required that the program produce “no false failures,” or ensure that any false failures be remedied without penalty to the vehicle owner. The ARB postponed resumption of the HDVIP pending the completion of SAE J1667 and the development of mechanisms for complying with the AB 584 mandates. Since October 15, 1993, the staff has continued outreach enforcement of the HDVIP on a voluntary compliance basis. In 1996 the Legislature enacted AB 1460 (Stats. 1996, ch. 292, Morrissey), making limited additional changes to the statute authorizing the HDVIP. After a multi-year process by the SAE task group, which included an ARB representative as well as representatives of industry, academia and other governmental agencies, the final SAE J1667 was issued in February 1996. In developing the document, the SAE task group addressed the technical issues surrounding the smoke test procedures, equipment performance specifications, and test corrections for the effects of altitude and weather.

**The existing PSIP regulations.** The PSIP regulations require that the owners of California-based fleets having two or more heavy-duty diesel-powered vehicles must perform annual inspections for excessive smoke and for defective or tampered emission control system components. Vehicles failing the smoke test or other aspects of the inspection must be repaired and retested. The smoke test is to be conducted using the SAE J1243 procedures specified in the HDVIP. Fleet owners are required to maintain specified records regarding their periodic inspections and follow-up repairs.

The PSIP regulations were adopted following a December 1992 hearing, in response to Health and Safety Code section 43701(a), enacted in 1990 by SB 2330 (Stats. 1990, ch. 1453, Killea). The regulations were originally scheduled to become operative in January 1995, with a 15-month phase-in period. In 1995 the Board amended the regulations to postpone the operative date until January 1, 1996, with the first 25 percent of an operator’s fleet having to be tested by July 1, 1996. The Board enacted this postponement so that fleet operators could defer purchase of smokemeters until SAE’s development of SAE J1667 was completed. Due to continued delays

in the completion of SAE J1667, the ARB advised fleet operators in March 1996 that it would administer the PSIP as a voluntary program pending its adoption of the SAE J1667 procedure.

**The proposed amendments.** The staff is proposing the following amendments to implement the requirements of AB 584 and AB 1460, and to improve the regulations:

- (1) Designate SAE J1667 “Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles,” as issued February 1996, as the test procedure for determining smoke opacity under the HDVIP and the PSIP.
- (2) Maintain the existing snap-acceleration opacity standards of 55 percent for pre-1991 model-year heavy-duty diesel engines and 40 percent for 1991 and subsequent model-year heavy-duty diesel-powered engines, without reference to the engines’ federal peak smoke certification level. These standards reflect data on maximum emissions from vehicles in good operating condition, gathered in the ARB’s recently completed 71-vehicle Truck Repair Study, and include a safety margin to account for variability in smoke measurement. On average, an SAE J1667 type smokemeter reads about 5 to 10 opacity points less for mechanical and electronic engines, respectively, compared to an SAE J1243 type meter.
- (3) Establish a mechanism under which owners of pre-1991 model-year heavy-duty diesel-powered engines that have roadside test snap-acceleration opacity levels that exceed 55 percent but do not exceed 69 percent are initially issued a Notice of Violation (NOV) in lieu of a citation. If, within 45 days, the owner demonstrates that he or she has made repairs which bring the vehicle into compliance with the 55 percent opacity standard, there will be no monetary penalty. If a demonstration of correction is not submitted within the 45-day period, a citation would be issued. The NOV mechanism would not apply where a previous NOV or citation had been issued for the vehicle in the preceding 12 months.
- (4) Retain exemptions to allow technologically less stringent standards for specific engine families based on data submitted by the engine manufacturers, and “grandfather-in” exemptions of engine families issued under the preexisting HDVIP.
- (5) Require explicitly that a demonstration of correction for a vehicle failing a roadside smoke test or visual inspection must include evidence that the vehicle has passed a post-repair test or inspection of the pertinent components.
- (6) Institute a new 15-month phase-in schedule for the PSIP, starting July 1, 1998.
- (7) Allow the SAE J1243 type smokemeter to be used in PSIP testing at facilities that are not equipped with an SAE J1667 type smokemeter, until July 1, 1999.

- (8) Exempt the newest four model years of heavy-duty engines from the PSIP requirements (vehicles equipped with these engines would remain subject to roadside inspections under the HDVIP).
- (9) Make various other changes to generally improve the regulations and to make them clearer and more readable.
- (10) Define excessive smoke as smoke opacity exceeding the applicable opacity standard.

The administrative hearing process for challenging citations will be retained; the staff plans to propose various amendments to the administrative hearing regulations to be considered by the Board in the spring of 1998.

### **AVAILABILITY OF DOCUMENTS AND CONTACT PERSON**

The Board staff has prepared a Staff Report which includes the initial statement of reasons for the proposed action and a summary of environmental impacts of the proposal. Copies of the Staff Report, the Technical Support Document, and the full text of the proposed regulatory language may be obtained from the Public Information Office, Air Resources Board, 2020 L Street, Sacramento, California 95814, (916) 322-2990. The Board staff has compiled a record which includes all information upon which the proposal is based. This material is available for inspection upon request to the contact persons identified below. The ARB has determined that it is not feasible to draft the regulations in plain English due to the technical nature of the regulations; however, a plain English summary of the regulation is available from the contact person named in the notice, and is also contained in the Staff Report: Initial Statement of Reasons for this regulatory action.

Further inquires regarding this matter should be directed to Mr. Ramon Cabrera or Mr. Robert Ianni of the Heavy Duty Diesel Branch in the ARB's Mobile Source Operations Division, at (626) 450-6177 and (916) 322-0845 respectively.

### **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 in reasonable compliance with the proposed regulatory action are presented below. An assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report. Although the ARB has not yet resumed active enforcement of the HDVIP and the PSIP, the regulatory requirements have not been repealed and remain part of the California Code of Regulations. Accordingly, the analyses of the impacts of the proposed amendments set forth below are based on a comparison with the existing regulatory requirements, rather than a comparison to a situation where no heavy-duty inspection programs exist.

In preparing the regulatory proposal, the staff has considered the potential economic impacts on California business enterprises and private individuals. Any business involved in the operation and service of heavy-duty diesel vehicles can potentially be affected by the proposed amendments. Also affected are businesses which manufacture the test equipment. All heavy-duty diesel trucks and buses operating on California roads, whether they are operated by an intrastate, interstate or international owner, are subject to the HDVIP. According to the ARB's MVE17G model, an estimated 570,561 and 777,214 heavy-duty diesel vehicles will be operating in California in 1999 and 2010 respectively. Approximately 81 percent of these vehicles — or an estimated 462,164 in 1999 and 629,543 in 2010 — will be registered in California. Of these California-registered vehicles, 63.1 percent will operate in fleets of two or more, and thus will also be subject to the requirements of the PSIP. These estimates compute to an estimated 291,625 vehicles in about 9,200 fleets subject to the PSIP in 1999, and an estimated 397,242 vehicles in about 12,600 fleets subject to the PSIP in 2010.

The proposed amendments do not change the basic PSIP requirement that fleet owners conduct annual smoke tests and inspections. The two significant proposed changes to the PSIP that could affect the costs of businesses are: (1) changing the smoke opacity test procedure from SAE J1243 to SAE J1667, and (2) exempting heavy-duty vehicles powered by 1994 and subsequent model-year engines until those engines are more than four model years old. The cost of SAE J1667 type smokemeters are, on average, about the same as the cost of SAE J1243 type smokemeters. Further, the steps taken to conduct an SAE J1667 test are similar to those associated with an SAE J1243 test. Accordingly, the change in the test procedure is expected to have no significant impacts on the costs of labor, the cost for smaller fleets to pay a separate entity for conducting the periodic tests, and, in most cases, the cost of smokemeters.

The one instance where the proposed change to the designated test procedure could have an adverse impact on fleet testing costs involves firms that have already acquired an SAE J1243 type smokemeter and will need to replace it with an SAE J1667 type smokemeter. There are several factors that suggest that the overall costs associated with replacing SAE J1243 type smokemeters will be minimal. First, it appears that relatively few fleet operators acquired SAE J1243 type smokemeters in anticipation of implementation of the PSIP. The ARB amended the regulations to delay implementation of the PSIP from January 1995 to January 1996 so that fleet operators would not have to buy SAE J1243 type smokemeters that would soon be outmoded. Second, two manufacturers of more expensive smokemeters have substantially lower prices for replacing or updating SAE J1243 type instruments (in one case, the upgrade is only \$200). Third, the proposed regulations include a grandfather clause that allows, until July 1, 1999, PSIP testing with an SAE J1243 type meter at a facility that does not have an SAE J1667 type meter. By July 1999, fleets that had purchased SAE J1243 type smokemeters several years ago would be approaching the date the meters would need to be replaced in any case, since the estimated useful life of such smokemeters is 5-10 years.

With regard to the exemption for new engines during the first four model years, staff estimates that 26 percent of the diesel engines in covered fleets will at any one time be no more

than four model years old. Thus the exemption is expected to reduce fleet administrative costs by an average of 26 percent, although only those fleets with the newer engines will be affected. Overall, this reduction in cost would be expected to offset any additional costs resulting from a need to replace SAE J1243 type smokemeters.

The remaining costs incurred by owners of heavy-duty vehicles in complying with the HDVIP and the PSIP consist of: (a) repair costs for vehicles failing an HDVIP or PSIP test, (b) increased costs for improved maintenance conducted by owners in order to avoid HDVIP or PSIP failures, (c) the lost opportunity cost of time spent undergoing HDVIP inspections, and (d) the savings from the reduced fuel costs that result from repairs and improved maintenance. Staff estimates that, overall, the amendments will result in a very small cost savings for these categories, due to the slightly reduced failure rate under the new test procedure.

For the above reasons, the proposed amendments are not expected to have a significant adverse economic impact on large or small businesses, including the ability of California businesses to compete with businesses in other states, or on directly affected private persons.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action should have no significant effect on 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 Staff Report.

The Executive Officer has also determined, pursuant to Government Code section 11346.5(a)(3)(B), that the proposed regulatory action will affect small business.

The Executive Officer has determined that the proposed regulatory action will not incur 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 17501), Division 4, Title 2 of the Government Code, or other nondiscretionary savings to local agencies. A significant number of state and local agencies and school districts operate heavy-duty vehicles that are subject to the HDVIP and the PSIP. The cost analysis for businesses set forth above is equally applicable to these public entities.

Before taking 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. To be considered by the Board, written submissions must be addressed and received by the Clerk of the Board, Air Resources Board, Post Office Box 2815, Sacramento, California 95812, no later than 12:00 noon December 10, 1997, or received by the Clerk of the Board at the hearing.

The Board requests, but does not require, that 20 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing. The Board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

## **STATUTORY AUTHORITY AND HEARING PROCEDURES**

This regulatory action is proposed under the authority granted in sections 39600, 39601, 43013, 43701(a), and 44011.6, Health and Safety Code. This regulatory action is proposed to implement, interpret, and make specific sections 39002, 39003, 39010, 39033, 43000, 43013, 43018, 43701(a), and 44011.6, Health and Safety Code, and sections 305, 505 and 2813, Vehicle Code.

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 Public Information Office, Air Resources Board, 2020 L Street, Sacramento, California 95814, (916) 322-2990.

**CALIFORNIA AIR RESOURCES BOARD**

Michael P. Kenny  
Executive Officer

Date: October 14, 1997