

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER ADOPTION OF AMENDMENTS TO REGULATIONS REGARDING EVAPORATIVE EMISSION STANDARDS AND TEST PROCEDURES APPLICABLE TO 1995 AND SUBSEQUENT MODEL-YEAR PASSENGER CARS, LIGHT-DUTY TRUCKS, MEDIUM-DUTY VEHICLES AND HEAVY-DUTY VEHICLES

The Air Resources Board (the Board or ARB) will conduct a public hearing at the time and place noted below to consider the adoption of amendments to the evaporative emissions standards and test procedures applicable to 1995 and subsequent model year passenger cars, light-duty trucks, medium-duty vehicles and heavy-duty vehicles. The proposed amendments incorporate the supplemental test recently adopted by the United States Environmental Protection Agency (U.S. EPA), and revise other portions of the California evaporative emission test procedures to align them more closely with the federal procedures.

DATE: February 10, 1994

TIME: 9:30 a.m.

PLACE: Air Resources Board
Hearing Room, Lower Level
2020 L Street
Sacramento, California

This item will be considered at a two-day meeting of the Board, which will commence at 9:30 a.m., February 10, 1994, and will continue at 8:30 a.m., February 11, 1994. This item may not be considered until February 11, 1994. Please consult the agenda for the meeting, which will be available at least 10 days before February 10, 1994, to determine the day on which this item will be considered.

INFORMATIVE DIGEST OF PROPOSED ACTION

Sections Affected: Section 1976, Title 13, California Code of Regulations and the incorporated "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

The ARB has administered evaporative emissions standards and test procedures for California motor vehicles and engines since the 1970's. Following a hearing in August 1990, the Board adopted "enhanced test procedures" which were designed to more effectively control evaporative emissions during summer months when high ambient temperatures exacerbate the potential for high evaporative emissions. The enhanced test procedures include a running loss determination, real-world hot soak and diurnal testing conditions, and the same durability requirements for evaporative emission control systems as are applicable to exhaust emission control systems. The standard for the running loss emissions test is 0.05 grams per mile and the standard for the hot soak plus the diurnal emissions test is 2.0 grams per test. The enhanced test procedures are phased-in beginning in the 1995 model year, with full compliance required for the 1998 model year.

On March 24, 1993, the U.S. EPA published enhanced test procedures for the federal evaporative emissions standards, to be phased-in beginning in the 1996 model year, with full compliance required for the 1998 model year. (58 F.R. 16002; 40 C.F.R. §§86.107-96 through 86.143-96.) The federal enhanced test procedures are generally patterned after the California enhanced test procedures with one major difference--the U.S. EPA added a "supplemental procedure," which provides additional assurance of adequate evaporative canister purge during short trips. Despite the prohibition of the use of "defeat devices," the U.S. EPA was concerned that vehicles certified under the ARB procedure may still contain some calibration or mechanism (defeat device) which causes a delay in initial, rapid purge. The U.S. EPA's supplemental test consists of vehicle preconditioning procedures, a standard exhaust test, a moderate-temperature hot soak test, and a two-day diurnal test. The federal procedures also contain various other differences from the ARB procedures, most of which are relatively minor.

The ARB staff is now proposing various amendments to the California enhanced test procedures. The amendments include incorporating the supplemental test procedure, in order to help assure adequate evaporative canister purge. In addition, the proposed amendments would further align the ARB's enhanced test procedures with the federal procedures by conforming most of the differences between the two test procedures. Those instances where differences would remain are described below. The amendments would also make a variety of technical changes to clarify the test procedures and to make them more practical and effective.

Staff is also proposing that the enhanced test procedures be made applicable to the heavy complete medium-duty vehicle class (8,501 - 14,000 lbs., gross vehicle weight rating (GVWR)). Currently this is the only vehicle class for which the ARB's enhanced test procedures have not been adopted. Due to the reduced lead time available to comply with the enhanced test procedures and the unique characteristics of these vehicles, staff is proposing that this vehicle class meet a less stringent hot soak plus diurnal standard of 3.0 grams per test. This standard is identical to the federal standard. The test requirements and new standard would apply to this vehicle class starting with the 1996 model year, and would be phased-in according to the enhanced test procedures implementation schedule.

The staff is not proposing changes to the numerical values of the ARB's existing evaporative emission standards for the hot soak plus the diurnal emissions test for any vehicles other than the complete heavy medium-duty class. As is the case with the federal regulations, the standards for the supplemental procedure would be numerically higher because the sole purpose of the supplemental procedure is to ensure adequate canister purge. Under the proposal, the evaporative emissions standards would be as follows:

Class of Vehicles	3 Day Diurnal + Hot Soak Standard (grams/test)	Proposed Supplemental Standard (grams/test)
Passenger Car	2.0	2.5
Light-Duty Trucks	2.0	2.5
Medium-Duty Vehicles		
(6,000 - 8,500 lbs. GVWR)	2.0	3.0
(8,501 - 14,000 lbs. GVWR)	3.0	3.5
Heavy-Duty Vehicles		
(over 14,000 lbs. GVWR)	2.0	4.5

The federal numerical standards are less stringent for two classes of vehicles--light-duty trucks and medium-duty vehicles under 8,500 pounds GVWR with fuel tanks equal to or greater than 30 gallons, and heavy-duty vehicles greater than 14,000 pounds GVWR.

Most of the proposed amendments to the enhanced test procedures would be implemented in the 1996 model year, when the phase-in of the federal regulations begins. Some of the proposed revisions are solely clarifications of the existing requirements and would apply in the 1995 model year. In addition, manufacturers would be allowed the option of implementing any 1996 model-year modifications one year earlier in the 1995 model year, as long as the Executive Officer determines that the effectiveness of the evaporative emission control system will not be diminished. Manufacturers would be allowed to carry-over 1995 model-year enhanced certification data as long as the supplemental test data is provided and specified conditions are met.

The numerous instances where amendments to the enhanced test procedures are proposed to conform the California procedures with the federal procedures reflect the staff's efforts to avoid conflicts between the two sets of requirements. The ARB procedures are not duplicative because under the federal Clean Air Act California motor vehicles will not have to be separately tested under the federal evaporative emissions standards and test procedures. Under the proposal, a few differences between the California and federal enhanced test procedures would remain. These differences include the following:

- o The ARB's current 105°F testing temperature requirement would not be changed; the federal procedure specifies a maximum temperature of 95°F. The higher ARB test temperature reflects high ambient summer temperatures in California and maintains the stringency of the ARB standards where certification gasoline having a lower Reid vapor pressure (RVP) is used.
- o The California procedures would continue to allow the use of a Phase 2 reformulated gasoline certification test fuel with a RVP of 7.0 psi, while the federal RVP requirement for certification test

gasoline is 9.0 psi. The use of Phase 2 certification gasoline provides one of the strategies manufacturers will use in meeting the ARB's stringent low-emission vehicle exhaust emission standards.

- o The correction factors for the running loss fuel temperature profile would continue to be different for the California and the federal regulations. In addition, the ARB procedures allow manufacturers to conduct the running loss test at a lower initial fuel temperature than 105°F if the manufacturer can demonstrate that the fuel temperature would be less than 105°F on a 105°F ambient temperature day. The federal procedure does not have such an allowance. Similarly, the federal correction factors do not address fuel temperatures which may be higher than the ambient temperature.
- o The ARB specifications for the cooling fans in the running loss test would continue to be more stringent than the federal requirements; fans meeting the California specifications would also meet the federal criteria.
- o In the last 120 seconds of the running loss test, the ARB procedures would continue to require that the fuel vapor temperature be controlled within $\pm 3^\circ\text{F}$ of the fuel vapor temperature profile. The federal regulation tightens the fuel liquid temperature tolerance from $\pm 3^\circ\text{F}$ to $\pm 2^\circ\text{F}$ during the last 120 seconds rather than controlling the fuel vapor temperature.

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 the environmental impacts of the proposal, if any. Copies of the Staff Report and the full text of the proposed regulatory language may be obtained from the Board's Public Information Office, 2020 L Street, Sacramento, CA 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 person identified immediately below.

Further inquiries regarding this matter should be directed to Susan Kwan, Staff Engineer, Toxics and Fuels Section, 9528 Telstar Avenue, El Monte, CA 91731, (818) 575-6696.

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 regulations are presented below:

The Executive Officer has determined that the proposed 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 nondiscretionary savings to local agencies.

The Executive Officer has also determined that adoption of the proposed regulatory action will not have a significant adverse economic impact on California businesses, including the ability of California businesses to compete with businesses in other states.

In accordance with Government Code section 11346.54, the Executive Officer has determined that the proposed regulatory action will not affect the creation or elimination of jobs within California, the creation of new businesses or the elimination of existing businesses in California, or the expansion of businesses currently doing business in California. An assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report.

Finally, the Executive Officer has determined that there will be no, or an insignificant, potential cost impact, as defined in Government Code section 11346.53(e), on private persons or businesses directly affected resulting from the proposed action.

In addition, 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. To be considered by the Board, written submissions must be addressed to and received by the Board Secretary, Air Resources Board, P. O. Box 2815, Sacramento, CA 95812, no later than 12:00 noon, February 9, 1994, or received by the Board Secretary 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 that authority granted in 39600, 39601, 39667, 43013, 43018, 43101, 43104, and 43107 of the Health and Safety Code. The regulations is proposed to implement, interpret, and make specific sections 39003, 39500, 39667, 43000, 43013, 43018, 43100, 43101, 43102, 43104, and 43107 of the Health and Safety Code.

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Title 2, Division 3, Part 1, Chapter 3.5 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 Board's Public Information Office, 2020 L Street, Sacramento, CA 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD



James D. Boyd
Executive Officer

Date: December 14, 1993