

ATTACHMENT H

**PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE CERTIFICATION
REQUIREMENTS AND PROCEDURES FOR LOW-EMISSION PASSENGER CARS,
LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES**

Staff's Suggested Changes to the Original Proposal

September 28, 1995

SUMMARY OF PROPOSED MODIFIED TEXT

The following is a summary of the changes staff is proposing to the regulatory amendments being considered at the Board hearing conducted on September 28, 1995. Modifications to the originally noticed text are designated by *bold italics* and ~~*bold strikeout*~~ to represent additions and deletions, respectively.

I. Title 13, California Code of Regulations Section 1956.8(c) and (h); California Exhaust Emission Standards and Test Procedures for 1987 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles, section 86.098-10(f)(1).

A. Pursuant to the Statement of Principles issues by the U.S. EPA in July 1995, staff is recommending adoption of the following proposed federal standards for 2004 and subsequent model medium-duty vehicles and heavy-duty otto-cycle engines.

1. The proposed standards applicable to medium-duty vehicles certified to the optional heavy-duty engine standards as set forth in Title 13, CCR, Section 1956.8(h) are as follows:

Exhaust Emission Standards for Engines Used in Incomplete Medium-Duty Low-Emission Vehicles ~~and Ultra-Low-Emission Vehicles, and Super Ultra-Low-Emission Vehicles~~ and for Diesel Engines Used in Medium-Duty Low-Emission Vehicles ~~and Ultra-Low-Emission Vehicles, and Super Ultra-Low-Emission Vehicles~~
(grams per brake horsepower-hour)

Model Year	Vehicle Emissions Category	Carbon Monoxide	Non-Methane Hydrocarbons and Oxides of Nitrogen		Formaldehyde	Particulates
			NMHC	NOx		
<i>2004 and subsequent⁶</i>	<i>ULEV</i>	<i>14.4</i>	<i>NMHC</i>	<i>NOx</i>	<i>0.050</i>	<i>0.10</i>
			<i>0.5</i>	<i>2.0</i>		
<i>2004 and subsequent</i>	<i>ULEV - Opt A.</i>	<i>14.4</i>	<i>2.5*</i>		<i>0.050</i>	<i>0.10</i>
<i>2004 and subsequent</i>	<i>ULEV - Opt. B</i>	<i>14.4</i>	<i>2.4*</i>		<i>0.050</i>	<i>0.10</i>

* *Manufacturers have the option of certifying to either option A or B. Manufacturers electing to certify to Option A must demonstrate that the NMHC emissions do not exceed 0.5 g/bhp-hr.*

2. The standards being proposed for heavy-duty otto-cycle engines are set forth in Title 13, CCR Section (c) and in the California Exhaust Emission Standards and Test

Procedures for 1987 and Subsequent Model Heavy-Duty Otto-Cycle Engines and Vehicles, Section 86.098-10(f)(1) is as follows:

(i) For Otto-cycle heavy-duty engines fueled with either gasoline or liquefied petroleum gas and intended for use only in vehicles with a Gross Vehicle Weight Rating *between 8,500 and greater than* 14,000 pounds.

~~(A) Total Hydrocarbons or OMHCE. 0.7 grams per brake horsepower-hour, as measured under transient operating conditions.~~

~~(B) Optional Non-Methane Hydrocarbons[†]. 0.4 grams per brake horsepower-hour, as measured under transient operating conditions.~~

~~(C) (A) Carbon Monoxide. 14.4 grams per brake horsepower-hour, as measured under transient operating conditions.~~

~~(D) Oxides of Nitrogen. 2.0 grams per brake horsepower-hour, as measured under transient operating conditions.~~

~~(B) Non-Methane Hydrocarbons + Oxides of Nitrogen.~~

~~(a) 2.5 grams per brake horsepower-hour total for ULEVs, as measured under transient operating conditions, including a cap of 0.5 grams per brake horsepower-hour for Non-Methane Hydrocarbons; or~~

~~(b) 2.4 grams per brake horsepower-hour total for ULEVs as measured under transient operating conditions.~~

B. Staff is also proposing an extension of the intermediate in-use compliance standards for medium-duty vehicles certifying to the optional heavy-duty engine standards as set forth in Title 13, CCR, Section 19546.8(h), footnote H:

H. For engines certified to the 3.5 grams per brake horsepower-hour LEV standards, the in-use compliance standard shall be 3.7 grams per brake horsepower-hour (g/bhp-hr) for the first two model years of introduction. For engines certified to the 2002 and 2003 model year LEV standards, the in-use compliance standard shall be 3.2 g/bhp-hr. For engines certified to the 1992 through 2003 model year ULEV standards, the in-use compliance standard shall be 2.7 g/bhp-hr.

II. Title 13, California Code of Regulations, Section 1960.1, section (h)(2); California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, sections 3.j, 4, and 6.

A. Staff is proposing the following intermediate in-use standards for dedicated fuel Super Ultra-Low-Emission Vehicles (SULEVs) as set forth in Section 1960.1, section (h)(2). (The same text is being proposed for the California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles, section 3.j)

Intermediate In-Use Compliance Standards										
Emission Category	Model Year	Durability Vehicle Basis (mi)	3751-5750 lbs.		5751-8500 lbs.		8501-10,000 lbs.		10,001-14,000 lbs.	
			NMOG (g/mi)	NO _x * (g/mi)	NMOG (g/mi)	NO _x * (g/mi)	NMOG (g/mi)	NO _x * (g/mi)	NMOG (g/mi)	NO _x * (g/mi)
<i>SULEV</i>	<i>through 2002</i>	<i>50,000</i>	<i>0.072</i>	<i>0.3</i>	<i>0.084</i>	<i>0.45</i>	<i>0.100</i>	<i>0.5</i>	<i>0.130</i>	<i>0.7</i>
		<i>120,000</i>	<i>0.100</i>		<i>0.117</i>		<i>0.138</i>		<i>0.180</i>	

*Intermediate in-use NO_x standards shall only apply to the 1998, 1999 and 2000 model year MDVs.

Staff is also proposing to correct the typographical error in footnote (9)(b) of section (h)(2):

. . . . Intermediate in-use compliance standards shall to apply to LEVs and ULEVs through the 1999 model year and to SULEVs through the **2005 2001 model** year.

B. Pursuant to a request from the automobile manufacturers, staff is allowing the use of durability data for medium-duty vehicles which line cross applicable NO_x standards for the 1998, 1999 and 2000 model years. (Section 4.c.5 and Section 6.b.5 of the California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles).

Section 4. Initial Requirements

c. Test Vehicles and Test Engines; Assigned Deterioration Factors

5. Amend subparagraph (f) and (h)(1)(v) by adding the following additional requirement which reads:

... For 1997 (~~1998 2001~~ for medium-duty vehicles) and subsequent model-year vehicles, durability data shall be submitted from only California (or fifty-state) configuration vehicles.

For the 1998 through 2000 model years, the Executive Officer shall allow the use of durability data for medium-duty vehicles certifying to the LEV standards as set forth in section 3.j. of these test procedures submitted from California only, federal, or fifty-state durability vehicles which line cross applicable NO_x standards. This provision shall also be applicable to durability data generated using a federal or California alternate durability program. Medium-duty vehicles certifying to the optional heavy-duty engine standards as

set forth in Title 13, CCR Section 1956.8(h) shall not be eligible for this NOx line-crossing exemption.

Section 6. Demonstrating Compliance

b. Compliance with Emission Standards

5. Amend subparagraph (a)(4)(i)(B) (durability vehicles must meet emissions standards) to read:

(B) For the 1998 through 2000 model years, the Executive Officer shall allow the use of durability data for medium-duty vehicles certifying to the LEV standards as set forth in section 3.j. of these test procedures submitted from California only, federal or fifty-state durability vehicles which line cross applicable NOx standards. Medium-duty vehicles certifying to the optional heavy-duty engine standards as set forth in Title 13, CCR Section 1956.8(h) shall not be eligible for this NOx line-crossing exemption.

- C. Finally, staff is proposing an increase of the LEV and ULEV 50°F multiplier pursuant to a request from manufacturers that all of the multipliers should be the same value.

Section 11. Additional Requirements

- k. **50°F Emission Test Requirement.** For all TLEVs, emissions of NMOG and formaldehyde at 50° F shall not exceed the 50,000 mile certification standard multiplied by a factor of 2.00. For all LEVs, emissions of NMOG and formaldehyde at 50° F shall not exceed the 50,000 mile certification standard multiplied by a factor of ~~1.75~~ **2.00**. For all ULEVs, emissions of NMOG and formaldehyde at 50° F shall not exceed the 50,000 mile certification standard multiplied by a factor of ~~1.0~~ **2.00**.

III. Non-Methane Organic Gas (NMOG) Test Procedures

A. Staff is proposing to allow the stock solution to be prepared volumetrically in addition to gravimetrically. This modification is in Section C, Method 1001, Determination of Alcohols in Automotive Source Samples by Gas Chromatography of the California NMOG Test Procedures.

- 5.4 A stock solution is prepared gravimetrically or volumetrically by diluting methanol and ethanol with deionized or purified water, e.g., for this method the stock solution contains is approximately 1 µg/mL percent by volume of each target alcohol.

IV. California Assembly-Line Test Procedures for 1998 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles.

A. Pursuant to a request from industry, staff is proposing that language be re-inserted which allows manufacturers to reject data from quality-audit test vehicles if it can be demonstrated that they are not representative of production vehicles. The proposed language is in Section C.4 of the California Assembly-Line Test Procedures.

~~Based upon additional information submitted by a manufacturer, the Executive Officer may allow rejection of any data from vehicles if they are considered to be not representative of production.~~ ***Based upon additional information submitted by a manufacturer, the Executive Officer may allow rejection of any data from vehicles if they are considered to be not representative of production.***

B. In order to clarify the conditions under which the illumination of the MIL should be reported in section C.4 of the California Assembly-Line Test Procedures, staff is proposing the following language:

... or (c) the MIL illuminates during vehicle break-in, preconditioning or testing for the malfunction of a specific component or system

C. In order to conform the text of this section with other requirements in the test procedures, staff is proposing an amendment to the language in section C.5 as follows:

(a) For an engine family certified to non-methane hydrocarbon (NMHC) standards, the manufacturer shall measure the NMHC content ***which shall be multiplied by and apply the NMHC DF to the result.***

V. California Motor Vehicle Emission Control and Smog Index Label Specifications

A. Staff is proposing to remove the requirement that San Diego and Ventura Counties must adopt pilot programs before the window label requirement becomes operative. Staff is therefore proposing that the smog index label become effective beginning with the 1998 model year. (California Motor Vehicle Emission Control and Smog Index Label Specifications, Section 2.(b))

(b) The specifications for smog index labels shall apply to all new passenger cars and light-duty trucks. This labeling requirement shall apply 90 days after both of the following occur be effective starting with the 1998 model year.

~~(1) The system required by subdivision (b) of Section 44060 of the Health and Safety Code for the electronic filing of certificates of compliance or noncompliance is~~

~~determined to be operational by the Department of Consumer Affairs and that fact is reported by the department to the California Secretary of State.~~

~~(2) Both the San Diego County Air Pollution Control District and the Ventura County Air Pollution Control District have sufficient funds available to implement the pilot program established pursuant to subdivision (b) of Section 43705 of the Health and Safety Code, as determined by each of those districts and reported by each district to the California Secretary of State.~~

~~The labeling requirement for smog index labels shall become inoperative five years from the date determined above.~~

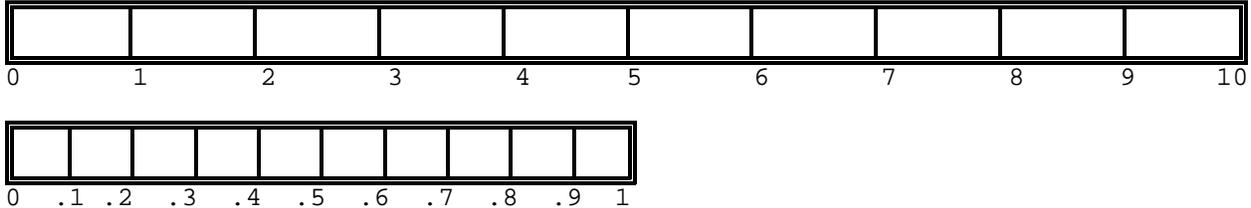
B. Staff is also proposing a modification to the placement of the window label:

3.5 Smog Index Labels. A smog index label made of paper or plastic shall be securely affixed in a readily visible location *either on a side window to the rear of the driver or, if it cannot be so placed, to the windshield of the motor vehicle.*

C. In order to be able to distinguish the difference between old and new vehicles and clean vehicles from the baseline vehicle, staff is proposing the following modified label. In addition, manufacturers have requested that an alternative to the prescribed window label specification be allowed. Therefore, staff is proposing the following language:

...This explanatory information *shall may* take the following form:

The Smog Index of this vehicle is 0.34



Note: The Smog Index (SI) indicates the relative level of pollutants emitted by the vehicle. The lower the SI, the lower the vehicle's emissions.

An alternative label may be used if shown to yield equivalent clarity and if approved in advance by the Executive Officer.