

State of California
AIR RESOURCES BOARD

Resolution 83-24

August 25, 1983

Agenda Item No. 83-12-2

WHEREAS, Section 39601 of the Health and Safety Code authorizes the Air Resources Board (the "Board") to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Section 43100 of the Health and Safety Code authorizes the Board to certify new motor vehicles;

WHEREAS, Section 43102 of the Health and Safety Code provides that no new motor vehicle shall be certified unless it meets specified emission standards and test procedures set by the state board;

WHEREAS, Sections 43013, 43101, and 43104 of the Health and Safety Code authorize the Board to adopt vehicle emission standards and test procedures in order to control or eliminate air pollution caused by motor vehicles;

WHEREAS, after public hearing and other administrative proceedings in accordance with the provisions of the Administrative Procedure Act, in 1981 the Board adopted optional transient certification procedures and exhaust emission standards for 1984 and subsequent model year heavy-duty engines and vehicles;

WHEREAS, the staff has proposed amendments to Section 1956.7, Title 13, of the California Administrative Code, regarding modification of the existing transient option to facilitate its use by manufacturers;

WHEREAS, the proposed amendments to Section 1956.7 would delay the naturally aspirated diesel engine crankcase emission requirement for one year and would substitute certain existing California labeling requirements for the labeling requirements of the federal transient procedures;

WHEREAS, the new labeling requirements proposed for heavy-duty engines using the optional standards and transient test procedures would be the same as those presently prescribed for heavy-duty vehicles using steady-state certification procedures and contained in the "California Motor Vehicle Tune-Up Label Specifications" as amended on June 16, 1983;

WHEREAS, the California Environmental Quality Act and Board regulations require that an activity not be adopted as proposed if the activity will have potentially significant adverse environmental impacts and alternatives or feasible mitigation measures are available which would substantially reduce or avoid such impacts;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with Section 11340), Part 1, Division 3, Title 2 of the Government Code.

WHEREAS, the Board finds that:

The federal transient labeling requirements adopted by California for the 1984 model year could result in potential confusion among some vehicle owners as to mechanical warranty coverage provided by vehicle manufacturers;

Incorporating the labeling requirements contained in the "California Motor Vehicle Tune-Up Specifications" into the heavy-duty optional standards and transient test procedures would remove any potential labeling confusion and would not adversely impact manufacturers;

Appropriate control technology is not available for at least two heavy-duty engine families for the 1984 model year in order to comply with the crankcase emission control requirement associated with the optional standards;

Heavy-duty engine families already equipped with crankcase emission controls would retain such devices for the 1984 model year even if the regulatory requirement is delayed for one year;

A potentially significant adverse environmental impact may result from the proposed amendment to delay the effective date of the crankcase emission control requirement in that there may be an estimated maximum potential statewide emissions impact of 0.02 tons/day hydrocarbon, 0.03 tons/day carbon monoxide, 0.01 tons/day nitrogen oxides, and 0.04 tons/day particulate matter continuing for the lifetime of the affected 1984 model year vehicles;

There are no feasible alternatives or mitigation measures available to reduce this potential impact, and in all other respects the proposed amendments will not have significant adverse environmental impacts.

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends Section 1956.7, Article 2, Subchapter 1, Chapter 3 of Title 13, California Administrative Code, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board hereby amends the "California Exhaust Emission Standards and Test Procedures for 1982 and Subsequent Model Heavy-Duty Engines and Vehicles," as set forth in Attachment B hereto.

Amend Title 13, California Administrative Code, Sections 1956.7(a) and 1956.7(c), to read as follows:

1956.7 Exhaust Emission Standards and Test Procedures - 1981 and Subsequent Model Heavy-Duty Engines and Vehicles.

(a) The exhaust emissions from new 1981 and subsequent model heavy-duty engines, except engines used in medium-duty vehicles, shall not exceed:

Primary Exhaust Emission Standards
(grams per brake horsepower hour)

Model Year	Hydrocarbons	Carbon Monoxide	Hydrocarbons plus Oxides of Nitrogen
1981-1983	1.0	25	6.0
OR*	-	25	5
1984 and subsequent	0.5	25	4.5

*The two sets of standards for each model year are alternatives. A manufacturer has the option for each engine family of showing compliance with either set. Separate deterioration factors shall be established where applicable, for HC, CO, NOx and/or the combined emissions of HC and NOx.

The following optional exhaust emission standards are applicable to engines tested pursuant to the optional federal test procedures and regulations for 1984 and subsequent model heavy-duty engines. These standards replace the federal standards in Code of Federal Regulations Sections 86.084-10, 86.084-11, and 86.085-11 for hydrocarbons, carbon monoxide and oxides of nitrogen only.**

Optional Exhaust Emission Standards
(grams per brake horsepower hour)

Model Year	Hydrocarbons	Carbon Monoxide	Oxides of Nitrogen
1984 and subsequent	1.3	15.5	5.1

**The federal 13-mode optional standards for 1984 model-year diesel-powered engines do not apply. In addition, the engine crankcase emission control requirement in Subparagraph 86.084-11(b)(2)(c) shall not apply for the 1984 model year and shall apply to 1985 and later model year naturally aspirated diesel heavy-duty engines, except for turbocharged engines.

* * *

(c) The test procedures for determining compliance with standards applicable to 1982 and subsequent models are set forth in the "California Exhaust Emission Standards and Test Procedures for 1982 and Subsequent Model Heavy-Duty Engines and Vehicles", adopted October 5, 1976, as last amended ~~September-24, 1981~~ August 25, 1983.

* * *

NOTE: Authority cited: Section 39600 and 39601 Health and Safety Code.
Reference: Sections 39002, 39003, 43000, 43013, 43100, 43101 and 43104, Health and Safety Code.

NOTE: Sections 1956.7(b), (d), and (e) remain in effect and are not changed by the above proposal.

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Note: These procedures are printed in a style to indicate the adopted changes. New text is underlined and deleted portions are noted.

CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES
FOR 1982 AND SUBSEQUENT MODEL
HEAVY-DUTY ENGINES AND VEHICLES

Adopted: October 5, 1976
Amended: November 21, 1977
Amended: March 1, 1978
Amended: May 24, 1978
Amended: April 23, 1980
Amended: May 22, 1980
Amended: January 21, 1981
Amended: August 25, 1983

CALIFORNIA EXHAUST EMISSION STANDARDS
AND TEST PROCEDURES FOR 1982
AND SUBSEQUENT MODEL
HEAVY-DUTY ENGINES AND VEHICLES

The provisions of Subparts A and D, Part 86, Title 40, Code of Federal Regulations, as they pertain to heavy-duty engines and vehicles, and as they existed on April 15, 1977, are hereby adopted as the primary California Exhaust Emission Standards and Test Procedures for 1982 and Subsequent Model Heavy-Duty Engines and Vehicles. For manufacturers that elect to certify heavy-duty engines pursuant to the federal transient cycle test procedures and regulations for 1984 and subsequent years, the provisions of Subparts A and N, Part 86, Code of Federal Regulations promulgated January 21, 1980, are hereby adopted as optional "California Exhaust Emission Test Procedures and Regulations for 1984 and Subsequent Model Heavy-Duty Engines and Vehicles." The federal procedures are applicable with the following exceptions and additions:

- A. Subsection A of this procedure is applicable to new 1982 and subsequent model heavy-duty engines and vehicles tested pursuant to the primary and optional test procedures and standards.
 1. A manufacturer may elect to certify heavy-duty vehicles of 10,000 pounds maximum gross vehicle weight rating or less as medium-duty vehicles, in which event heavy-duty standards and test procedures will not apply.
 2. Definitions.
 - a. "Administrator" means the Executive Officer of the Air Resources Board.
 - b. "Certificate of Conformity" means "Executive Order" certifying vehicles for sale in California.
 - c. "Certification" means certification as defined in Section 39018 of the Health and Safety Code.
 - d. "Heavy-duty engine" means an engine which is used to propel a heavy-duty vehicle.
 - e. "Heavy-duty vehicle" means any motor vehicle having a manufacturer's gross vehicle weight rating greater than 6,000 pounds, except passenger cars.
 - f. "Medium-duty vehicle" means any heavy-duty vehicle having a manufacturer's gross vehicle weight rating of 8500 pounds or less.

3. Any reference to vehicle or engine sales throughout the United States shall mean vehicle or engine sales in California.
4. Regulations concerning EPA hearings, EPA inspections, and specific language on the Certificate of Conformity, shall not be applicable to these procedures.
5. Labeling required pursuant to paragraph 86.079-35 for steady-state certification, labeling required pursuant to paragraph 86.084-35 for transient certification, and pursuant to Section 1965, Chapter 3, Title 13 of the California Administrative Code shall conform with the requirements specified in the "California Motor Vehicle Tune-Up Label Specifications".

6. 5. Vehicle manufacturers shall affix a decal on each production vehicle in accordance with Section 43200 of the California Health and Safety Code.

B. Subsection B of this procedure is applicable to the primary test procedures and standards for all heavy-duty engines and vehicles:

1. For gasoline and diesel-powered engines and vehicles:
 - a. Durability data submitted pursuant to subparagraph 86.079-24(f) may be from engines previously certified by EPA or ARB.
 - b. The requirement in subparagraph 86.079-28(b)(4)(i)(B) (durability engines must meet emission standards) shall refer to federal emission standards.
 - c. ~~Labeling required pursuant to paragraph 86.079-35 and Section 1965, Chapter 3, Title 13 of the California Administrative Code shall conform with the requirements specified in the "California Motor Vehicle Tune-Up Label Specifications."~~
 - d. A statement must be supplied that the production engines shall be in all material respects the same as those for which certification was granted.
 - e. The average brake horsepower at each mode shall be reported for all emission tests.

- e. f. Engine manufacturers may apply durability and/or emission test data from 1979 and earlier model years towards certification for 1982 and subsequent models for similar engines, notwithstanding differences in the instrumentation. In the event that hydrocarbon emission data based on measurements from a nondispersive infrared analyzer are used pursuant to this section, such data shall be multiplied by a factor of 1.5 prior to comparison with the standards.

2. For gasoline-powered engines and vehicles only:

- a. The mechanism for adjusting the idle air/fuel mixture, if any shall be designed so that either:
 - i. The mixture adjustment mechanism is not visible, even with the air cleaner removed, and special tools and/or procedures are required to make adjustments; or
 - ii. In the alternative, the Executive Officer may, upon reasonable notice to the manufacturer, require that a certification test of an engine or vehicle be conducted with the idle air/fuel mixture at any setting which the Executive Officer finds corresponds to settings likely to be encountered in actual use. The Executive Officer, in making this finding, shall consider the difficulty of making adjustments, damage to the carburetor in the event of any effort to make an improper adjustment, and the need to replace parts following the adjustment.

The manufacturer shall submit for approval by the Executive Officer the proposed method of compliance with this requirement in its preliminary application for certification.

The Executive Officer may, on a case-by-case basis, exempt from the requirements of this section engines which use carburetors substantially different in design from carburetors used on light or medium-duty vehicles and which the manufacturer demonstrates cannot be made to comply with this section within the available lead time. Such exemptions shall only apply to the 1982 model year.

- b. A gasoline-powered vehicle manufacturer shall provide with the application:

- i. Identification and description of the vehicle models for which certification is requested.
 - ii. Identification and description of the engines to be used in those vehicle models.
 - iii. Reference to the engine manufacturer's Executive Order certifying these engines.
 - c. If a gasoline-powered engine manufacturer requires the use of unleaded fuel, a statement will be required that the engine and transmission combinations for which certification is requested are designed to operate satisfactorily on a gasoline having a research octane number not greater than 91.
- 3. For diesel-powered heavy-duty engines only:
 - a. No durability fleet or smoke emission test will be required and any reference to durability testing shall be optional. No deterioration factor shall be used for calculating the emission test results. The 125 hour test shall be used to determine compliance with the emission standards.
 - b. Evidence must be submitted to the Executive Officer to demonstrate the durability of the emission control system. Such evidence may include durability test data and/or an engineering evaluation of the system. This evaluation shall be based on previous experience and/or similarity to previously certified systems.

C. Exhaust Emission Standards:

1. The following primary exhaust emission standards represent the maximum projected emissions from new heavy-duty gasoline engines and the maximum 125-hour test exhaust emissions from new heavy-duty diesel engines:

Primary Exhaust Emission Standards
(grams per brake horsepower hour)

Model Year	Hydrocarbons	Carbon Monoxide	Hydrocarbons Plus Oxides of Nitrogen
1982 - 1983	1.0	25	6.0
OR*		25	5
1984 and subsequent	0.5	25	4.5

*The two sets of standards for each model year are alternatives. A manufacturer has the option for each engine family of showing compliance with either set.

Separate deterioration factors shall be established, where applicable, for HC, CO, NOx, and/or the combined emissions of HC and NOx.

2. The following optional exhaust emission standards are applicable pursuant to the federal test procedure and regulations for 1984 and subsequent model heavy duty engines. These standards replace the federal standards in CFR Sections 86.084-10, 86.084-11, and 86.085-11 for hydrocarbons, carbon monoxide, and oxides of nitrogen, only.**

Optional Exhaust Emission Standards
(grams per brake-horsepower-hour)

Model Year	Hydrocarbons	Carbon Monoxide	Oxides of Nitrogen
1984 and Subsequent	1.3	15.5	5.1

** The federal 13-mode optional standards for diesel-powered engines for 1984 only are not applicable to California. In addition, the engine crankcase emission control requirement in Subparagraph 86.084-11(b)(2)(c) shall not apply for the 1984 model year and shall apply to 1985 and later model year naturally aspirated diesel heavy-duty engines, except for turbocharged engines.

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Response to Significant Environmental Issues

Item: PUBLIC HEARING TO CONSIDER AMENDMENTS TO TITLE 13, SECTION 1956.7, CALIFORNIA ADMINISTRATIVE CODE, REGARDING A ONE YEAR DELAY OF THE 1984 HEAVY-DUTY ENGINE CRANKCASE EMISSION REQUIREMENT AND MODIFICATION OF THE ENGINE LABELING REQUIREMENTS FOR 1984 AND SUBSEQUENT MODEL HEAVY-DUTY ENGINES AND VEHICLES CERTIFIED TO MEET CALIFORNIA'S OPTIONAL EXHAUST EMISSIONS STANDARDS USING THE TRANSIENT CYCLE TEST PROCEDURES.

Agenda Item No.: 83-12-2

Public Hearing Date: August 25, 1983

Response Date: August 25, 1983

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any significant environmental issues pertaining to this item. The staff report and Board Resolution No. 83-24 identified a maximum daily statewide HC, CO, NOx, and particulate emissions increase of 0.02 tons, 0.03 tons, 0.01 tons, and 0.04 tons, respectively. The increased emissions would only occur for the lifetime of the affected 1984 model year vehicles. There are no feasible alternatives or mitigation measures available to reduce the potential impact, and in all other respects, the adopted amendments will not have significant adverse environmental impacts.

Response: None

CERTIFIED:


Board Secretary

Date:

10-21-83

RECEIVED BY
Office of the Secretary

DEC 06 1983

Resources Agency of California

Memorandum

: Gordon Van Vleck
Secretary
Resources Agency

Date : December 7, 1983

Subject: Filing of Notice of
Decisions of the Air
Resources Board

Harold Holmes
Harold Holmes
Board Secretary

From : Air Resources Board

Pursuant to Title 17, Section 60007 (b), and in compliance with Air Resources Board certification under section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decision and response to environmental comments raised during the comment period.

ATTACHMENTS

83-14
83-15
83-16
83-21
83-22
~~83-23~~

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DEC 06 1983

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