

§ 1956.8. Exhaust Emission Standards and Test Procedures - 1985 and Subsequent Model Heavy-Duty Engines and Vehicles.

(a) [No change.]

(b) The test procedures for determining compliance with standards applicable to 1985 and subsequent model heavy-duty diesel engines and vehicles and the requirements for participating in the averaging, banking and trading programs, are set forth in the "California Exhaust Emission Standards and Test Procedures for 1985 and ~~Subsequent through 2003~~ Model Heavy-Duty Diesel Engines and Vehicles," adopted April 8, 1985, as last amended ~~October 25, 2004~~ December 12, 2002, the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," adopted December 12, 2002, and the "California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes," adopted October 24, 2002, which are incorporated by reference herein.

(c)(1)(A) [No change.]

(B) The exhaust emissions from new 2005 and subsequent model heavy-duty Otto-cycle engines, except for Otto-cycle medium- and heavy-duty engines subject to the alternative standards in 40 CFR §86,005-10(f), shall not exceed:

California Emission Standards for 2005 and Subsequent Model Heavy-Duty Otto-Cycle Engines^A
(in g/bhp-hr)

<i>Model Year</i>	<i>Emission Category</i>	<i>NMHC + NO_x</i>	<i>CO</i>	<i>HCHO</i>
<i>Standards for Heavy-Duty Otto-Cycle Engines Used In Incomplete Medium-Duty Vehicles 8,501 to 14,000 pounds GVW^B</i>				
2005 and subsequent	ULEV	1.0 ^C	14.4	0.05
	SULEV	0.5	7.2	0.025
<i>Standards for Heavy-Duty Otto-Cycle Engines Used In Heavy-Duty Vehicles Over 14,000 pounds GVW</i>				
2005 and subsequent	n/a	1.0 ^C	37.1	0.05 ^D

<u>Model Year</u>	<u>Emission Category</u>	<u>NMHC + NOx</u>	<u>NMHC</u>	<u>NOx</u>	<u>CO^F</u>	<u>HCHO</u>	<u>PM</u>
<u>Standards for Heavy-Duty Otto-Cycle Engines Used In Incomplete Medium-Duty Vehicles 8,501 to 14,000 pounds GVW^B</u>							
<u>2005 through 2007</u>	<u>ULEV</u>	<u>1.0^{C,E}</u>	<u>n/a</u>	<u>n/a</u>	<u>14.4</u>	<u>0.05</u>	<u>n/a</u>
	<u>SULEV</u>	<u>0.5</u>	<u>n/a</u>	<u>n/a</u>	<u>7.2</u>	<u>0.025</u>	<u>n/a</u>
<u>2008 and subsequent</u>	<u>ULEV</u>	<u>n/a</u>	<u>0.14^E</u>	<u>0.20^E</u>	<u>14.4</u>	<u>0.01</u>	<u>0.01</u>
	<u>SULEV</u>	<u>n/a</u>	<u>0.07^E</u>	<u>0.10^E</u>	<u>7.2</u>	<u>0.005</u>	<u>0.005</u>
<u>Standards for Heavy-Duty Otto-Cycle Engines Used In Heavy-Duty Vehicles Over 14,000 pounds GVW</u>							
<u>2005 through 2007</u>	<u>n/a</u>	<u>1.0^{C,E}</u>	<u>n/a</u>	<u>n/a</u>	<u>37.1</u>	<u>0.05^D</u>	<u>n/a</u>
<u>2008 and subsequent</u>	<u>n/a</u>	<u>n/a</u>	<u>0.14^E</u>	<u>0.20^E</u>	<u>14.4</u>	<u>0.01</u>	<u>0.01</u>

- A These standards apply to petroleum-fueled, alcohol-fueled, liquefied petroleum gas-fueled and natural gas-fueled Otto-cycle engines.
- B. A manufacturer of engines used in incomplete medium-duty vehicles may choose to comply with these standards as an alternative to the primary emission standards and test procedures for complete vehicles specified in section 1961, title 13, CCR. A manufacturer that chooses to comply with these optional heavy-duty engine standards and test procedures shall specify, in the Part I application for certification, an in-use compliance test procedure, as provided in section 2139(c), title 13 CCR.
- C A manufacturer may request to certify to the Option 1 or ~~or~~ Option 2 federal NMHC + NOx standards as set forth in 40 CFR § 86.005-10(f), ~~adopted October 6, 2000~~. However, for engines used in medium-duty vehicles 8,501–14,000 lbs. GVW, the formaldehyde and carbon monoxide level standards must meet the standard levels specified above.
- D This standard only applies to methanol-fueled Otto-cycle engines.
- E A manufacturer may elect to include any or all of its medium- and heavy-duty Otto-cycle engine families in any or all of the emissions ABT programs for HDEs, within the restrictions described in section I.15 of the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines," incorporated by reference in section 1956.8(d). For engine families certified to the Option 1 or 2 federal standards, the FEL must not exceed 1.5 g/bhp-hr. If a manufacturer elects to include engine families certified to the 2005 and subsequent model year standards, the NOx plus NMHC FEL must not exceed 1.0 g/bhp-hr. For engine families certified to the 2008 and subsequent model year standards, the FEL is the same as set forth in 40 CFR 86.008-10(a)(1).
- E Idle carbon monoxide: For all Otto-cycle heavy-duty engines utilizing aftertreatment technology, and not certified to the on-board diagnostics requirements of section 1968, et seq, as applicable, the CO emissions shall not exceed 0.50 percent of exhaust gas flow at curb idle.

(c)(2) [No change.]

(d) The test procedures for determining compliance with standards applicable to 1987 and subsequent model heavy-duty Otto-cycle engines and vehicles are set forth in the "California Exhaust Emission Standards and Test Procedures for 1987 through 2003 Model Heavy-Duty Otto-Cycle Engines and Vehicles," adopted April 25, 1986, as last amended December 27, 2000, the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Otto-Cycle Engines," adopted December 27, 2000, as last amended December 12, 2002, the "California Non-Methane Organic Gas Test Procedures," adopted July 12, 1991, as last amended July 30, 2002, and the "California Interim Certification Procedures for 2004 and Subsequent Model Hybrid-Electric Vehicles, in the Urban Bus and Heavy-Duty Vehicle Classes," adopted October 24, 2002, which are incorporated by reference herein.

Subsections (e) through (h)(2) footnote ^I. [No change.]

- ^J Emissions averaging may be used to meet these standards for diesel engines, using the requirements for participation in averaging, banking and trading programs, as set forth in the "California Exhaust Emission Standards and Test Procedures for ~~1985~~2004 and Subsequent Model Heavy-Duty Engines and Vehicles," ⁷ incorporated by reference in section 1956.8(b), above.
- ^K Engines of 1998 and subsequent model years may be eligible to generate averaging, banking and trading credits based on these standards according to the requirements of the averaging, banking and trading programs described in the "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent through 2003 Model Heavy-Duty Engines and Vehicles" ⁷ and the "California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles," incorporated by reference in section 1956.8(b), above.

Subsections (h)(2) footnote ^L through (h)(4). [No change.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43100, 43101, 43104, 43105 and 43806, Health and Safety Code, and Section 28114, Vehicle Code. Reference: Sections 39002, 39003, 39500, 43000, 43013, 43018, 43100, 43101, 43102, 43104, 43106, 43202, 43204, 43206, 43210, 43211, 43212, 43213 and 43806, Health and Safety Code; and Section 28114, Vehicle Code.

