

**§ 88.105-94 Clean-fuel fleet emission standards for heavy-duty engines.**

(a) Exhaust emissions from engines used in heavy-duty low emission vehicles shall meet one of the following standards:

(1) Combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 3.8 grams per brake horsepower-hour.

(2) Combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 3.5 grams per brake horsepower-hour when tested (certified) on fuel meeting the specifications of California certification fuel.

(b) Exhaust emissions from engines used in heavy-duty low emission vehicles shall meet conventional vehicle standards set forth in Part 86 for total hydrocarbon, carbon monoxide, particulate, and organic material hydrocarbon equivalent.

(c) Exhaust emissions from engines used in ultra-low emission heavy-duty vehicles shall meet each of the following standards:

(1) The combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 2.5 grams per brake horsepower-hour.

(2) Carbon monoxide emissions shall not exceed 7.2 grams per brake horsepower-hour.

(3) Particulate emissions shall not exceed 0.05 grams per brake horsepower-hour.

(4) Formaldehyde emissions shall not exceed 0.025 grams per brake horsepower-hour.

(d) Exhaust emissions from engines used in inherently-low emission heavy-duty vehicles shall meet each of the following standards:

(1) The combined emissions of oxides of nitrogen and nonmethane hydrocarbons (or nonmethane hydrocarbon equivalent) shall not exceed 2.5 grams per brake horsepower-hour.

(2) Carbon monoxide emissions shall not exceed 14.4 grams per brake horsepower-hour.

(3) Particulate emissions shall not exceed 0.10 grams per brake horsepower-hour.

(4) Formaldehyde emissions shall not exceed 0.05 grams per brake horsepower-hour.

(e) The standards set forth in paragraphs (a), (b), (c), and (d) of this section refer to the exhaust emitted while the vehicle is being tested in accordance with the applicable test procedures set forth in 40 CFR part 86, subpart N.

(f)(1) A heavy-duty zero-emission vehicle (ZEV) has a standard of zero emissions for nonmethane hydrocarbons, oxides of nitrogen, carbon monoxide, formaldehyde, and particulates.

(2) A heavy-duty vehicle shall be certified as a ZEV if it is determined by engineering analysis that the vehicle satisfies the following conditions:

(i) The vehicle fuel system(s) must not contain either carbon or nitrogen compounds (including air) which, when burned, form nonmethane hydrocarbons, oxides of nitrogen, carbon monoxide, formaldehyde, or particulates as exhaust emissions.

(ii) All primary and auxiliary equipment and engines must have no emissions of nonmethane hydrocarbons, oxides of nitrogen, carbon monoxide, formaldehyde, and particulates.

(iii) The vehicle fuel system(s) and any auxiliary engine(s) must have no evaporative emissions.

(iv) Any auxiliary heater must not operate at ambient temperatures above 40 degrees Fahrenheit.

(g) All heavy-duty engines used in low emission, ultra-low emission, or zero emission vehicles shall also comply with all applicable standards and requirements of 40 CFR part 86, except that any exhaust emission standards in 40 CFR part 86 pertaining to pollutants for which standards are established in this section shall not apply.

[59 FR 50077, Sept. 30, 1994]

**Subpart B—California Pilot Test Program**

**§ 88.201-94 Scope.**

*Applicability.* The requirements of this subpart shall apply to the following:

(a) State Implementation Plan revisions for the State of California and

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other states pursuant to compliance with section 249 of the Clean Air Act, as amended in 1990.

(b) Vehicle manufacturers with sales in the State of California.

[57 FR 60046, Dec. 17, 1992, as amended at 59 FR 50077, Sept. 30, 1994]

### § 88.202-94 Definitions.

(a) The definitions in subpart A also apply to this subpart.

(b) The definitions in this subpart shall apply beginning with the 1992 model year.

*Averaging* for clean-fuel vehicles means the sale of clean-fuel vehicles that meet more stringent standards than required, which allows the manufacturer to sell fewer clean-fuel vehicles than would otherwise be required.

*Banking* means the retention of credits, by the manufacturer generating the emissions credits, for use in future model-year certification as permitted by regulation.

*Sales* means vehicles that are produced, sold, and distributed (in accordance with normal business practices and applicable franchise agreements) in the State of California, including owners of covered fleets under subpart C of part 86 of this chapter. The manufacturer can choose at their option from one of the following three methods for determining sales:

(i) Sales is defined as sales to the ultimate purchaser.

(ii) Sales is defined as vehicle sales by a manufacturer to a dealer, distributor, fleet operator, broker, or any other entity which comprises the first point of sale.

(iii) Sales is defined as equivalent to the production of vehicles for the state of California. This option can be revoked if it is determined that the production and actual sales numbers do not exhibit a functional equivalence per the language of § 86.708-94(b)(1) of this chapter.

*Trading* means the exchange of credits between manufacturers.

### § 88.203-94 Abbreviations.

The abbreviations in subpart A of this part and in 40 CFR part 86 apply to this subpart.

### § 88.204-94 Sales requirements for the California Pilot Test Program.

(a) The total annual required minimum sales volume of new clean fuel vehicles in California for this program shall correspond to Table B204.

(b) (1) When manufacturers of vehicles subject to the regulations of this section file a report pursuant to 40 CFR 86.085-37(b), such report shall include the following information: the number of light-duty vehicles and light-duty trucks sold only in California, and the number of clean-fuel vehicles sold for the Pilot program beginning with model year 1996.

(2) For model years 1996 and 1997, manufacturers may exclude heavy light-duty trucks from the reporting required by this section.

(c) (1) Except as provided in paragraph (d) of this section, each vehicle manufacturer must sell clean-fuel vehicles in California in an amount equal to the required annual sales volume calculated in paragraph (c)(2) of this section.

(2) The required annual clean fuel vehicle sales volume for a given manufacturer is expressed in the following equation rounded to the nearest whole number:

$$\text{RMS} = \frac{\text{MS}}{\text{TS}} \times \text{TCPPS}$$

Where:

RMS = a manufacturer's required sales in a given model year.

MS = the average of a manufacturer's total LDV and light LDT sales in California three and four model years earlier than year in question (for MY 1996 and 1997 RMS calculations).

= the average of a manufacturer's total LDV and LDT sales in California three and four model years earlier than year in question (for MY 1998 and later RMS calculations).

TS = the average of total LDV and light LDT sales in California of all manufacturers three and four model years earlier than the year in question (for MY 1996 and 1997 RMS calculations). Sales of manufacturers which meet the criteria of (d) of this paragraph will not be included.

= the average of total LDV and LDT sales in California of all manufacturers three and four model years earlier than the year in question (for MY 1998 and later RMS calculations). Sales of manufacturers which