

percent of exhaust gas flow at curb idle.

(C) *Oxides of nitrogen.* 10.6 grams per brake horsepower-hour, as measured under transient operating conditions.

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust emitted over the operating schedule set forth in paragraph (f)(1) of appendix I to this part, and measured and calculated in accordance with the procedures set forth in subparts N or P.

(3)(i) A manufacturer may certify one or more gasoline-fueled heavy-duty engine configurations intended for use in all vehicles to the emission standards set forth in paragraph (a)(1)(ii) of this paragraph: *Provided*, That the total model year sales of such configuration(s) being certified to the emission standards in paragraph (a)(1)(ii) of this section represent no more than 5 percent of total model year sales of all gasoline-fueled heavy-duty engines intended for use in vehicles with a Gross Vehicle Weight Rating of up to 14,000 pounds by the manufacturer.

(ii) The configurations certified to the emission standards of paragraph (a)(1)(ii) of this section under the provisions of paragraph (a)(3)(i) of this section shall still be required to meet the evaporative emission standards set forth in paragraphs (b)(1)(i)(A) and (b)(2)(i) of this section.

(b)(1) Evaporative emissions from 1988 and later model year gasoline-fueled heavy-duty vehicles shall not exceed:

(i) *Hydrocarbons.* (A) For vehicles with a Gross Vehicle Weight Rating of up to 14,000 pounds, 3.0 grams per test.

(B) For vehicles with a Gross Vehicle Weight Rating of greater than 14,000 pounds, 4.0 grams per test.

(2)(i) For vehicles with a Gross Vehicle Weight Rating of up to 26,000 pounds, the standards set forth in paragraph (b)(1) of this section refer to a composite sample of fuel evaporative emissions collected under the conditions set forth in subpart M and measured in accordance with those procedures.

(ii) For vehicles with a Gross Vehicle Weight Rating of greater than 26,000 pounds, the standard set forth in paragraph (b)(1)(i)(B) of this section refers to the manufacturer's engineering de-

sign evaluation using good engineering practice (a statement of which is required in § 86.088-23(b)(4)(ii)).

(c) No crankcase emissions shall be discharged into the ambient atmosphere from any new 1988 or later model year gasoline-fueled heavy-duty engine.

(d) Every manufacturer of new motor vehicle engines subject to the standards prescribed in this section shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motor vehicle engines in accordance with applicable procedures in subpart N or P of this part to ascertain that such test engines meet the requirements of paragraphs (a) and (c) of this section.

(Secs. 202, 203, 206, 207, 208, 301a, Clean Air Act, as amended; 42 U.S.C. 7521, 7522, 7525, 7541, 7542, 7601a)

[50 FR 10651, Mar. 15, 1985, as amended at 52 FR 47864, Dec. 16, 1987]

§ 86.090-1 General applicability.

(a) The provisions of this subpart apply to: 1990 and later model year new Otto-cycle and diesel light-duty vehicles; 1990 and later model year new Otto-cycle and diesel light-duty trucks; and, 1990 and later model year new Otto-cycle and diesel heavy-duty engines.

(b) *Optional applicability.* A manufacturer may request to certify any heavy-duty vehicle of 10,000 pounds Gross Vehicle Weight Rating or less to the light-duty truck provisions. Heavy-duty engine or vehicle provisions do not apply to such a vehicle.

(c) [Reserved]

(d) *Alternative Durability Program.* For 1990 and later model year light-duty vehicles and light-duty trucks, a manufacturer may elect to participate in the Alternative Durability Program. This optional program provides an alternative method of determining exhaust emission control system durability. The general procedures and a description of the programs are contained in § 86.085-13 and specific provisions on test vehicles and compliance procedures are contained in § 86.085-24 and § 86.088-28 respectively.

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(e) *Small-Volume Manufacturers.* Special certification procedures are available for any manufacturer whose projected combined U.S. sales of light-duty vehicles, light-duty trucks, and heavy-duty engines in its product line are fewer than 10,000 units for the model year in which the manufacturer seeks certification. In order to certify its product line under these optional procedures, the small-volume manufacturer must first obtain the Administrator's approval. Vehicles produced at facilities leased, operated, controlled, supervised, or is ten percent or greater part owned by the manufacturer shall be counted in calculating the total sales of the manufacturer. The small-volume manufacturer's certification procedures are described in §86.090-14.

(f) *Optional Procedures for Determining Exhaust Opacity.* (1) The provisions of subpart I apply to tests which are performed by the Administrator, and optionally, by the manufacturer.

(2) Measurement procedures, other than that described in subpart I, may be used by the manufacturer provided the manufacturer satisfies the requirements of §86.090-23(f).

(3) When a manufacturer chooses to use an alternative measurement procedure it has the responsibility to determine whether the results obtained by the procedure will correlate with the results which would be obtained from the measurement procedure in subpart I. Consequently, the Administrator will not routinely approve or disapprove any alternative opacity measurement procedure or any associated correlation data which the manufacturer elects to use to satisfy the data requirements of subpart I.

(4) If a confirmatory test(s) is performed and the results indicate there is a systematic problem suggesting that the data generated under an optional alternative measurement procedure do not adequately correlate with subpart I data, EPA may require that all certificates of conformity not already issued be based on data from subpart I procedures.

[54 FR 14459, Apr. 11, 1989]

§ 86.090-2 Definitions.

The definitions in §86.088-2 remain effective. The definitions in this section apply beginning with the 1990 model year.

Averaging for heavy-duty engines means the exchange of NO_x and particulate emission credits among engine families within a given manufacturer's product line.

Averaging set means a subcategory of heavy-duty engines within which engine families can average and trade emission credits with one other.

Banking means the retention of heavy-duty engine NO_x and particulate emission credits, by the manufacturer generating the emission credits, for use in future model year certification programs as permitted by regulation.

Composite particulate standard, for a manufacturer which elects to average light-duty vehicles and light-duty trucks together in either the petroleum-fueled or methanol-fueled light-duty particulate averaging program, means that standards calculated using the following equation and rounded to the nearest one-hundredth (0.01) of a gram per mile:

$$\left(\frac{\text{PROD}_{\text{LDV}}}{\text{PROD}_{\text{LDV}} + \text{PROD}_{\text{LDT}}} \right) (\text{STD}_{\text{LDV}}) + \left(\frac{\text{PROD}_{\text{LDT}}}{\text{PROD}_{\text{LDV}} + \text{PROD}_{\text{LDT}}} \right) (\text{STD}_{\text{LDT}}) = \text{Manufacturer composite particulate standard}$$

Where:

PROD_{LDV} represents the manufacturer's total petroleum-fueled diesel or methanol-fueled diesel light-duty vehicle production for those engine families being included in the appropriate average for a given model year.

STD_{LDV} represents the light-duty vehicle particulate standard.

PROD_{LDT} represents the manufacturer's total petroleum-fueled diesel or methanol-fueled diesel light-duty truck production for those engine families being included in the appropriate average for a given model year.