

**Environmental Protection Agency**

**§ 86.085-2**

be based on data from subpart I procedures.

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

[48 FR 22548, May 19, 1983, as amended at 50 FR 10648, Mar. 15, 1985; 51 FR 24608, July 7, 1986]

**§ 86.085-2 Definitions.**

The definitions of § 86.084-2 remain effective. The definitions listed in this section apply beginning with the 1985 model year.

*Abnormally treated vehicle*, any diesel light-duty vehicle or diesel light-duty truck that is operated for less than five miles in a 30 day period immediately prior to conducting a particulate emissions test.

*Composite particulate standard*, for a manufacturer which elects to average diesel light-duty vehicles and diesel light-duty trucks together in the particulate averaging program, means that standard calculated according to the following equation and rounded to the nearest hundredth gram-per-mile:

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

Where:

$\text{PROD}_{\text{LDV}}$  represents the manufacturer's total diesel light-duty vehicle production for those engine families being included in the average for a given model year.

$\text{STD}_{\text{LDV}}$  represents the light-duty vehicle particulate standard.

$\text{PROD}_{\text{LDT}}$  represents the manufacturer's total diesel light-duty truck production for those engine families being included in the average for a given model year.

$\text{STD}_{\text{LDT}}$  represents the light-duty truck particulate standard.

*Family particulate emission limit* means the diesel particulate emission level to which an engine family is certified in the particulate averaging program, expressed to an accuracy of one hundredth gram-per-mile.

*Incomplete gasoline-fueled heavy-duty vehicle* means any gasoline-fueled heavy-duty vehicle which does not have the primary load-carrying device, or passenger compartment, or engine compartment or fuel system attached.

*Production-weighted average* means the manufacturer's production-weighted average particulate emission level, for certification purposes, of all of its diesel engine families included in the particulate averaging program. It is calculated at the end of the model year by multiplying each family particulate emission limit by its respective production, summing these terms, and dividing the sum by the total production of the effected families. Those vehicles

produced for sale in California or at high altitude shall each be averaged separately from those produced for sale in any other area.

*Primary intended service class* means:

(a) The primary service application group for which a heavy-duty diesel engine is designed and marketed, as determined by the manufacturer. The primary intended service classes are designated as light, medium, and heavy heavy-duty diesel engines. The determination is based on factors such as vehicle GVW, vehicle usage and operating patterns, other vehicle design characteristics, engine horsepower, and other engine design and operating characteristics.

(1) Light heavy-duty diesel engines usually are non-sleeved and not designed for rebuild; their rated horsepower generally ranges from 70 to 170. Vehicle body types in this group might include any heavy-duty vehicle built for a light-duty truck chassis, van trucks, multi-stop vans, recreational vehicles, and some single axle straight trucks. Typical applications would include personal transportation, light-load commercial hauling and delivery, passenger service, agriculture, and construction. The GVWR of these vehicles is normally less than 19,500 lbs.

(2) Medium heavy-duty diesel engines may be sleeved or non-sleeved and may

be designed for rebuild. Rated horsepower generally ranges from 170 to 250. Vehicle body types in this group would typically include school buses, tandem axle straight trucks, city tractors, and a variety of special purpose vehicles such as small dump trucks, and trash compactor trucks. Typical applications would include commercial short haul and intra-city delivery and pickup. Engines in this group are normally used in vehicles whose GVWR varies from 19,500-33,000 lbs.

(3) Heavy heavy-duty diesel engines are sleeved and designed for multiple rebuilds. Their rated horsepower generally exceeds 250. Vehicles in this group are normally tractors, trucks, and buses used in inter-city, long-haul applications. These vehicles normally exceed 33,000 lbs GVWR.

*Useful life* means:

(a) For light-duty vehicles a period of use of 5 years or 50,000 miles, whichever first occurs.

(b) For a light-duty truck engine family, a period of use of 11 years or 120,000 miles, whichever occurs first.

(c) For a gasoline-fueled heavy-duty engine family (and in the case of evaporative emission regulations, for gasoline-fueled heavy-duty vehicles), a period of use of 8 years or 110,000 miles, whichever first occurs.

(d) For a diesel heavy-duty engine family:

(1) For light heavy-duty diesel engines, a period of use of 8 years or 110,000 miles, whichever first occurs.

(2) For medium heavy-duty diesel engines, a period of use of 8 years or 185,000 miles, whichever first occurs.

(3) For heavy heavy-duty diesel engines, a period of use of 8 years or 290,000 miles, whichever first occurs.

(e) As an option for both light-duty truck and heavy-duty engine families, an alternative useful life period assigned by the Administrator under the provisions of paragraph (f) of § 86.085-21.

(f) The useful-life period for purposes of the emissions defect warranty and emissions performance warranty shall be a period of 5 years/50,000 miles whichever first occurs, for light-duty trucks, gasoline heavy-duty engines, and light heavy-duty diesel engines. For all other heavy-duty diesel engines the aforementioned period is 5 years/

100,000 miles, whichever first occurs. However, in no case may this period be less than the manufacturer's basic mechanical warranty period for the engine family.

[48 FR 33462, July 21, 1983, as amended at 48 FR 52184, Nov. 16, 1983; 52 FR 47863, Dec. 16, 1987]

**§ 86.085-13 Alternative Durability Program.**

(a) The procedures of the Alternative Durability Program are optional. Manufacturers may use these optional procedures to determine deterioration factors instead of using the procedures that this subpart otherwise requires.

(b) The optional procedures of the Alternative Durability Program apply only to light-duty vehicles and light-duty trucks, and are effective for the 1985 and later model years. All manufacturers of these vehicles are eligible to participate in this program.

(c) For engine families subject to the procedures of the Alternative Durability Program, the manufacturer shall submit deterioration factors to the Administrator for approval to use them for certification. The Administrator shall approve the use of deterioration factors that:

(1) The manufacturer attests are representative of the durability performance of its vehicles in actual field use when maintained according to the manufacturer's maintenance instructions (as limited under § 86.084-25(a)), and

(2) Are equal to or greater than the deterioration factors that EPA determines under paragraph (d) of this section.

(d) EPA shall determine minimum deterioration factors for engine families subject to the Alternative Durability Program. This determination shall be based on a procedure of grouping engine families (see § 86.085-24(a)) in order to use historical certification data to determine deterioration factors for each engine family group. The historical data shall be updated yearly through the testing of production durability-data vehicles. Test vehicle requirements under these procedures are contained in § 86.085-24(h) and compliance requirements are contained in § 86.085-28 (a)(5) and (b)(5).