

miles for all other diesel heavy-duty engines. However, in no case may this period be less than the basic mechanical warranty period.

(7) The assigned useful-life period options, as detailed in paragraphs (c)(1) through (c)(6) of this section, are applicable for the 1984 model year only.

(d)(1) As an option for the 1984 model year and for the 1984 model year only, the useful life of light-duty trucks and heavy-duty engine families may be defined as prescribed in § 86.077-2.

(2) For purpose of identification this option shall be known as the half-life useful-life option.

[45 FR 63747, Sept. 25, 1980, as amended at 47 FR 49811, Nov. 2, 1982; 48 FR 1412, Jan. 12, 1983; 48 FR 48607, Oct. 19, 1983; 49 FR 48136, Dec. 10, 1984; 70 FR 40433, July 13, 2005]

**§ 86.084-4 Section numbering; construction.**

(a) *Section numbering.* (1) The model year of initial applicability is indicated by the last two digits of the 5-digit group. A section remains in effect for subsequent model years until it is superseded. The number following the hyphen designates what previous section is replaced by a future regulation.

*Examples:* Section 86.077-6 applies to the 1977 and subsequent model years until superseded. If a § 86.080-6 is promulgated it would take effect with the 1980 model year; § 86.077-6 would not apply after the 1979 model year. Section 86.077-10 would be replaced by § 86.078-10 beginning with the 1978 model year.

(2) Where a section still in effect references a section that has been superseded, the reference shall be interpreted to mean the superseding section.

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model year.

(c) *Construction.* Except where indicated, the language in this subpart applies to both vehicles and engines. In many instances, language referring to engines is enclosed in parentheses and immediately follows the language discussing vehicles.

[45 FR 63747, Sept. 25, 1980, as amended at 59 FR 48492, Sept. 21, 1994]

**§ 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:

PROD<sub>LDV</sub> represents the manufacturer's total diesel light-duty vehicle production for those engine families being included in the average for a given model year.

STD<sub>LDV</sub> represents the light-duty vehicle particulate standard.

PROD<sub>LDT</sub> represents the manufacturer's total diesel light-duty truck production for those engine families being included in the average for a given model year.

STD<sub>LDT</sub> 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]