

FTP—Federal Test Procedure.  
 g—gram(s).  
 gal.—U.S. gallon(s).  
 GC—Gas chromatograph.  
 GVW—Gross vehicle weight.  
 GVWR—Gross vehicle weight rating.  
 H<sub>2</sub>O—Water.  
 HC—Hydrocarbon(s).  
 HCHO—Formaldehyde.  
 HDV—Heavy-duty vehicle.  
 HEV—Hybrid electric vehicle.  
 HFID—Heated flame ionization detector.  
 Hg—Mercury.  
 HLDT—Heavy light-duty truck. Includes only those trucks over 6000 pounds GVWR (LDT3s and LDT4s).  
 HLDT/MDPV—Heavy light-duty trucks and medium-duty passenger vehicles.  
 hp—Horsepower.  
 HPLC—High-pressure liquid chromatography.  
 IBP—Initial boiling point.  
 in.—Inch(es).  
 IUVP—In-Use Verification Program.  
 K—Kelvin.  
 kg—Kilogram(s).  
 km—Kilometer(s).  
 kPa—Kilopascal(s).  
 lb.—Pound(s).  
 LDT1—Light-duty truck 1.  
 LDT2—Light-duty truck 2.  
 LDT3—Light-duty truck 3.  
 LDT4—Light-duty truck 4.  
 LDV/LLDT—Light-duty vehicles and light-duty trucks. Includes only those trucks rated at 6000 pounds GVWR or less (LDT1s and LDT2s).  
 LDV/T—Light-duty vehicles and light-duty trucks. This term is used collectively to include, or to show that a provision applies to, all light-duty vehicles and all categories of light-duty trucks, i.e. LDT1, LDT2, LDT3 and LDT4.  
 LEV—Low Emission Vehicle.  
 LPG—Liquefied Petroleum Gas.  
 m—Meter(s).  
 max.—Maximum.  
 MDPV—Medium-duty passenger vehicle.  
 mg—Milligram(s).  
 mi.—Mile(s).  
 min.—Minimum.  
 ml—Milliliter(s).  
 mm—Millimeter(s).  
 mph—Miles per hour.  
 mV—Millivolt  
 N<sub>2</sub>—Nitrogen.  
 NDIR—Nondispersive infrared.  
 NLEV—Refers to the National Low Emission Vehicle Program. Regulations governing this program are found at subpart R of this part.  
 NMHC—Nonmethane Hydrocarbons.  
 NMHCE—Non-Methane Hydrocarbon Equivalent.  
 NMOG—Non-methane organic gases.  
 NO—nitric oxide.  
 No.—Number.

O<sub>2</sub>—Oxygen.  
 OEM—Original equipment manufacturer.  
 NO<sub>2</sub>—Nitrogen dioxide.  
 NO<sub>x</sub>—Oxides of nitrogen.  
 Pb—Lead.  
 pct.—Percent.  
 PDP-CVS—Positive displacement pump—constant volume sampler.  
 ppm—Parts per million by volume.  
 PM—Particulate Matter.  
 ppm C—Parts per million, carbon.  
 psi—Pounds per square inch.  
 R—Rankin.  
 RAF—Reactivity adjustment factor.  
 rpm—Revolutions per minute.  
 RVP—Reid vapor pressure.  
 s—Second(s).  
 SAE—Society of Automotive Engineers.  
 SBC—Standard Bench Cycle  
 SFTP—Supplemental Federal Test Procedure.  
 SI—International system of units.  
 SRC—Standard Road Cycle  
 SULEV—Super Ultra Low Emission Vehicle.  
 TD—dispensed fuel temperature.  
 THC—Total Hydrocarbons.  
 THCE—Total Hydrocarbon Equivalent.  
 TLEV—Transitional Low Emission Vehicle.  
 UDDS—Urban dynamometer driving schedule.  
 ULEV—Ultra Low Emission Vehicle.  
 UV—Ultraviolet.  
 vs—Versus.  
 W—Watt(s).  
 WOT—Wide open throttle.  
 Wt.—Weight.  
 ZEV—Zero Emission Vehicle.

[64 FR 23925, May 4, 1999, as amended at 65 FR 6852, Feb. 10, 2000; 65 FR 59965, Oct. 6, 2000; 71 FR 2829, Jan. 17, 2006]

**§ 86.1805-01 Useful life.**

(a) For light-duty vehicles and light-duty trucks, intermediate useful life is a period of use of 5 years or 50,000 miles, whichever occurs first.

(b) Full useful life is as follows:

(1) For light-duty vehicles and light-duty trucks full useful life is a period of use of 10 years or 100,000 miles, which ever occurs first.

(2) For heavy light-duty trucks full useful life is a period of use of 11 years or 120,000 miles, which ever occurs first.

(3) For complete heavy-duty vehicles, the full useful life is a period of use of 11 years or 120,000 miles, which ever occurs first.

(c) Manufacturers may petition the Administrator to provide alternative useful life periods for light-duty trucks or complete heavy-duty vehicles when

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they believe that the useful life periods are significantly unrepresentative for one or more test groups (either too long or too short). This petition must include the full rationale behind the request together with any supporting data and other evidence. Based on this or other information the Administrator may assign an alternative useful-life period. Any petition should be submitted in a timely manner, to allow adequate time for a thorough evaluation. For light-duty trucks, alternative useful life periods will be granted only for THC, THCE, and idle CO requirements.

[64 FR 23925, May 4, 1999, as amended at 65 FR 59965, Oct. 6, 2000]

### § 86.1805-04 Useful life.

(a) Except as required under paragraph (b) of this section or permitted under paragraphs (d), (e) and (f) of this section, the full useful life for all LDVs, LDT1s and LDT2s is a period of use of 10 years or 120,000 miles, whichever occurs first. For all HLDTs, MDPVs, and complete heavy-duty vehicles full useful life is a period of 11 years or 120,000 miles, whichever occurs first. This full useful life applies to all exhaust, evaporative and refueling emission requirements except for standards which are specified to only be applicable at the time of certification.

(b) Manufacturers may elect to optionally certify a test group to the Tier 2 exhaust emission standards for 150,000 miles to gain additional NO<sub>x</sub> credits, as permitted in §86.1860-04(g), or to opt out of intermediate life standards as permitted in §86.1811-04(c). In such cases, useful life is a period of use of 15 years or 150,000 miles, whichever occurs first, for all exhaust, evaporative and refueling emission requirements except for cold CO standards and standards which are applicable only at the time of certification.

(c) Where intermediate useful life exhaust emission standards are applicable, such standards are applicable for five years or 50,000 miles, whichever occurs first.

(d) Where cold CO standards are applicable, the useful life requirement for compliance with the cold CO standard

only, is 5 years or 50,000 miles, whichever occurs first.

(e) Where LDVs, LDT1s and LDT2s of the 2003 or earlier model years are certified to Tier 2 exhaust emission standards for purposes of generating early Tier 2 NO<sub>x</sub> credits, manufacturers may certify those vehicles to full useful lives of 100,000 miles in lieu of the otherwise required 120,000 mile full useful lives, as provided under §86.1861-04(c)(4).

(f) For interim non-Tier 2 LDV/LLDTs, the useful life requirement for exhaust, evaporative and refueling emissions is 10 years or 100,000 miles, whichever occurs first.

(g) Where cold temperature NMHC standards are applicable, the useful life requirement for compliance with the cold temperature NMHC standard only is as follows:

(1) For LDV/LLDTs, 10 years or 120,000 miles, whichever occurs first.

(2) For HLDT/MDPVs, 11 years or 120,000 miles, whichever occurs first.

[65 FR 6852, Feb. 10, 2000, as amended at 65 FR 59965, Oct. 6, 2000; 72 FR 8561, Feb. 26, 2007]

### § 86.1805-12 Useful life.

(a) Except as permitted under paragraph (b) of this section or required under paragraphs (c) and (d) of this section, the full useful life for all LDVs and LLDTs is a period of use of 10 years or 120,000 miles, whichever occurs first. The full useful life for all HLDTs, MDPVs, and complete heavy-duty vehicles is a period of 11 years or 120,000 miles, whichever occurs first. These full useful life values apply to all exhaust, evaporative and refueling emission requirements except for standards which are specified to only be applicable at the time of certification. These full useful life requirements also apply to all air conditioning leakage credits, air conditioning efficiency credits, and other credit programs used by the manufacturer to comply with the fleet average CO<sub>2</sub> emission standards in §86.1818-12.

(b) Manufacturers may elect to optionally certify a test group to the Tier 2 exhaust emission standards for 150,000 miles to gain additional NO<sub>x</sub> credits, as permitted in §86.1860-04(g), or to opt out of intermediate life standards as