

Subclass means a classification of heavy-duty engines of heavy-duty vehicles based on such factors as gross vehicle weight rating, fuel usage (gasoline-, diesel-, and methanol-fueled), vehicle usage, engine horsepower or additional criteria that the Administrator shall apply. Subclasses include, but are not limited to:

- (i) Light-duty gasoline-fueled Otto cycle trucks (6,001-8,500 lb. GVW)
- (ii) Light-duty methanol-fueled Otto cycle trucks (6,001-8,500 lb. GVW)
- (iii) Light-duty petroleum-fueled diesel trucks (6,001-8,500 lb. GVW)
- (iv) Light-duty methanol-fueled diesel trucks (6,001-8,500 lb. GVW)
- (v) Light heavy-duty gasoline-fueled Otto cycle engines (for use in vehicles of 8,501-14,000 lb. GVW)
- (vi) Light heavy-duty methanol-fueled Otto cycle engines (for use in vehicles of 8,501-14,000 lb. GVW)
- (vii) Heavy heavy-duty gasoline-fueled Otto cycle engines (for use in vehicles of 14,001 lb and above GVW)
- (viii) Heavy heavy-duty methanol-fueled Otto cycle engines (for use in vehicles of 14,001 lb. and above GVW)
- (ix) Light heavy-duty petroleum-fueled diesel engines (see § 86.085-2(a)(1))
- (x) Light heavy-duty methanol-fueled diesel engines (see § 86.085-2(a)(1))
- (xi) Medium heavy-duty petroleum-fueled diesel engines (see § 86.085-2(a)(2))
- (xii) Medium heavy-duty methanol-fueled diesel engines (see § 86.085-2(a)(2))
- (xiii) Heavy heavy-duty petroleum-fueled diesel engines (see § 86.085-2(a)(3))
- (xiv) Heavy heavy-duty methanol-fueled diesel engines (see § 86.085-2(a)(3))
- (xv) Petroleum-fueled Urban Bus engines (see § 86.091-2)
- (xvi) Methanol-fueled Urban Bus engines (see § 86.091-2).

For NCP purposes, all optionally certified engines and/or vehicles (engines certified in accordance with § 86.087-10(a)(3) and vehicles certified in accordance with § 86.085-1(b)) shall be considered part of, and included in the FRAC calculation of, the subclass for which they are optionally certified.

Test Sample means a group of heavy-duty engines or heavy-duty vehicles of the same configuration which have been selected for emission testing.

Upper limit means the emission level for a specific pollutant above which a certificate of conformity may not be issued or may be suspended or revoked.

[50 FR 35388, Aug. 30, 1985, as amended at 55 FR 46628, Nov. 5, 1990]

§ 86.1103-87 Criteria for availability of nonconformance penalties.

(a) EPA shall establish for each subclass of heavy-duty engines and heavy-duty vehicles (other than motorcycles), an NCP for a motor vehicle pollutant, when any new or revised emission standard is more stringent than the previous standard for the pollutant, or when an existing standard for that pollutant becomes more difficult to achieve because of a new or revised standard, provided that EPA finds:

(1) That for such subclass of engines or vehicles, substantial work will be required to meet the standard for which the NCP is offered, and

(2) That there is likely to be a technological laggard.

(b) Substantial work, as used in paragraph (a)(1) of this section, means the application of technology not previously used in an engine or vehicle class or subclass, or the significant modification of existing technology or design parameters, needed to bring the vehicle or engine into compliance with either the more stringent new or revised standard or an existing standard which becomes more difficult to achieve because of a new or revised standard.

§ 86.1104-91 Determination of upper limits.

(a) The upper limit applicable to a pollutant emission standard for a subclass of heavy-duty engines or heavy-duty vehicles for which an NCP is established in accordance with § 86.1103-87, shall be the previous pollutant emission standard for that subclass.

(b) If no previous standard existed for the pollutant under paragraph (a) of this section, the upper limit will be developed by EPA during rulemaking.

(c) If a manufacturer participates in any of the emissions averaging, trading, or banking programs, and carries over certification of an engine family from the prior model year, the upper limit for that engine family shall be the family emission limit of the prior model year, unless the family emission limit is less than the upper limit determined in paragraph (a) of this section.

[55 FR 30629, July 26, 1990]

§ 86.1105-87 Emission standards for which nonconformance penalties are available.

(a)-(b) [Reserved]

(c) Effective in the 1991 model year, NCPs will be available for the following additional emission standards:

(1) [Reserved]

(2) Petroleum-fueled diesel heavy-duty engine oxides of nitrogen standard of 5.0 grams per brake horsepower-hour.

(i) For petroleum-fueled light heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113-87(a):

(1) COC₅₀: \$830.

(2) COC₉₀: \$946.

(3) MC₅₀: \$1,167 per gram per brake horsepower-hour.

(4) F: 1.2.

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113-87(h): 0.12.

(ii) For petroleum-fueled medium heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113-87(a):

(1) COC₅₀: \$905.

(2) COC₉₀: \$1,453.

(3) MC₅₀: \$1,417 per gram per brake horsepower-hour.

(4) F: 1.2.

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113-87(h): 0.11.

(iii) For petroleum-fueled heavy-duty diesel engines:

(A) The following values shall be used to calculate an NCP in accordance with § 86.1113-87(a):

(1) COC₅₀: \$930.

(2) COC₉₀: \$1,590.

(3) MC₅₀: \$2,250 per gram per brake horsepower-hour.

(4) F: 1.2.

(B) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113-87(h): 0.11.

(3) Petroleum-fueled diesel light-duty trucks (between 6,001 and 14,000 lbs GVW) particulate matter emission standard of 0.13 grams per vehicle mile.

(i) The following values shall be used to calculate an NCP in accordance with § 86.1113-87(a):

(A) COC₅₀: \$711.

(B) COC₉₀: \$1,396.

(C) MC₅₀: \$2,960 per gram per brake horsepower-hour.

(D) F: 1.2.

(ii) The following factor shall be used to calculate the engineering and development component of the NCP in accordance with § 86.1113-87(h): 0.01.

(d) Effective in the 1993 model year, NCPs will be available for the following additional emission standard:

(1) Petroleum-fueled diesel bus engine (as defined in § 86.093-2) particulate emission standard of 0.10 grams per brake horsepower-hour.

(i) The following values shall be used to calculate an NCP for the standard set forth in § 86.093-11(a)(1)(iv)(A) in accordance with § 86.1113-87(a):

(A) COC₅₀: \$4,020.

(B) COC₉₀: \$4,535.

(C) MC₅₀: \$22,971 per gram per brake horsepower-hour.

(D) F: 1.2.

(E) UL: 0.25 grams per brake horsepower-hour.

(ii) The following factor shall be used to calculate the engineering and development component of the NCP for the standard set forth in § 86.093-11(a)(1)(iv)(A) in accordance with § 86.1113-87(h): 0.02.

(2) [Reserved]

(e) The values of COC₅₀, COC₉₀, and MC₅₀ in paragraphs (a) and (b) of this section are expressed in December 1984 dollars. The values of COC₅₀, COC₉₀, and MC₅₀ in paragraphs (c) and (d) of this section are expressed in December 1989 dollars. The values of COC₅₀, COC₉₀, and MC₅₀ in paragraph (f) of this section are expressed in December 1991 dollars. The values of COC₅₀, COC₉₀, and MC₅₀ in paragraphs (g) and (h) of this section