
40 C.F.R. § 86.007-11

Emission standards and supplemental requirements for 2007 and later model year diesel heavy-duty engines and vehicles.

This section applies to new 2007 and later model year diesel heavy-duty engines and vehicles. Starting in model year 2021, this section also applies to all heavy HDE, regardless of fuel or combustion cycle (see 40 CFR 1036.140(a) and 1036.150(c)). Section 86.007-11 includes text that specifies requirements that differ from § 86.004-11. Where a paragraph in § 86.004-11 is identical and applicable to § 86.007-11, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.004-11.”

(a)

(1) Exhaust emissions from new 2007 and later model year diesel HDEs shall not exceed the following:

(i) *Oxides of Nitrogen (NO_x)*. (A) 0.20 grams per brake horsepower-hour (0.075 grams per megajoule).

(B) A manufacturer may elect to include any or all of its diesel HDE families in any or all of the NO_x and NO_x plus NMHC emissions ABT programs for HDEs, within the restrictions described in § 86.007-15 or § 86.004-15. If the manufacturer elects to include engine families in any of these programs, the NO_x FELs may not exceed the following FEL caps: 2.00 grams per brake horsepower-hour (0.75 grams per megajoule) for model years before 2010; 0.50 grams per brake horsepower-hour (0.19 grams per megajoule) for model years 2010 and later. This ceiling value applies whether credits for the family are derived from averaging, banking, or trading programs.

(ii)

(A) *Nonmethane hydrocarbon (NMHC) for engines fueled with diesel fuel*. 0.14 grams per brake horsepower-hour (0.052 grams per megajoule).

(B) *Nonmethane-nonethane hydrocarbon (NMNEHC) for engines fueled with natural gas or liquefied petroleum gas*. 0.14 grams per brake horsepower-hour (0.052 grams per megajoule).

(C) *Nonmethane hydrocarbon equivalent (NMHCE) for engines fueled with methanol*. 0.14 grams per brake horsepower-hour (0.052 grams per megajoule).

(iii) *Carbon monoxide*. 15.5 grams per brake horsepower-hour (5.77 grams per megajoule).

(iv) *Particulate*. (A) 0.01 grams per brake horsepower-hour (0.0037 grams per megajoule).

(B) A manufacturer may elect to include any or all of its diesel HDE families in any or all of the particulate ABT programs for HDEs, within the restrictions described in § 86.007-15 or other applicable sections. If the manufacturer elects to include engine families in any of these programs, the particulate FEL may not exceed 0.02 grams per brake horsepower-hour (0.0075 grams per megajoule).

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust emitted over the duty cycle specified in paragraphs (a)(2)(i) through (iii) of this section, where exhaust emissions are measured and calculated as specified in paragraphs (a)(2)(iv) and (v) of this section in accordance with the procedures set forth in subpart N of this part, except as noted in § 86.007-23(c)(2):

(i) Perform the test interval set forth in paragraph (f)(2) of appendix I of this part with a cold-start according to 40 CFR part 1065, subpart F. This is the cold-start test interval.

(ii) Shut down the engine after completing the test interval and allow 20 ± 1 minutes to elapse. This is the hot soak.

(iii) Repeat the test interval. This is the hot-start test interval.

(iv) Calculate the total emission mass of each constituent, m , and the total work, W , over each test interval according to 40 CFR 1065.650.

(v) Determine your engine's brake-specific emissions using the following calculation, which weights the emissions from the cold-start and hot-start test intervals:

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