40 C.F.R. § 86.1818-12

Greenhouse gas emission standards for light-duty vehicles, light-duty trucks, and medium-duty passenger vehicles.

(a) *Applicability.* (1) The greenhouse gas standards and related requirements in this section apply to 2012 and later model year LDV, LDT, and MDPV, including multi-fuel vehicles, vehicles fueled with alternative fuels, hybrid electric vehicles, plug-in hybrid electric vehicles, electric vehicles, and fuel cell vehicles. Unless otherwise specified, multi-fuel vehicles must comply with all requirements established for each consumed fuel.

(2) The standards specified in this section apply for testing at both low-altitude conditions and high-altitude conditions. However, manufacturers must submit an engineering evaluation indicating that common calibration approaches are utilized at high altitude instead of performing testing for certification, consistent with § 86.1829. Any deviation from low altitude emission control practices must be included in the auxiliary emission control device (AECD) descriptions submitted at certification. Any AECD specific to high altitude requires engineering emission data for EPA evaluation to quantify any emission impact and determine the validity of the AECD.

(3) A manufacturer that qualifies as a small business according to § 86.1801-12(j) is exempt from the emission standards in this section and the associated provisions in 40 CFR part 600; however, manufacturers may trade emission credits generated in a given model year only by certifying to emission standards that apply for that model year. Starting in model year 2027, manufacturers may produce no more than 500 exempt vehicles in any model year under this paragraph (a)(3). This limit applies for vehicles with engines, including plug-in hybrid electric vehicles; this limit does not apply for electric vehicles. Vehicles that are not exempt under this paragraph (a)(3) must meet emission standards as specified in this section.

(4) Emergency vehicles may be excluded from the emission standards described in this section. The manufacturer must notify the Administrator that they are making such an election in the model year reports required under 40 CFR 600.512-12. Exclude such vehicles from both the calculation of the fleet average standard for a manufacturer under paragraph (c) of this section and from the calculation of the fleet average carbon-related exhaust emissions in 40 CFR 600.510-12.

(b) *Definitions.* The following definitions apply for this section:

(1) *Passenger automobile* means a motor vehicle that is a passenger automobile as that term is defined in 49 CFR 523.4.

(2) *Light truck* means a motor vehicle that is a non-passenger automobile as that term is defined in 49 CFR 523.5.

(3) Manufacturer has the meaning given by the Department of Transportation at 49 CFR 531.4.

(c) *Fleet average* CO_2 *standards.* Fleet average CO_2 standards apply as follows for passenger automobiles and

light trucks:

(1) Each manufacturer must comply with separate fleet average CO_2 standards for passenger automobiles and light trucks. To calculate the fleet average CO_2 standards for passenger automobiles for a given model year, multiply each CO_2 target value by the production volume of passenger automobiles for the corresponding model type-footprint combination, then sum those products and divide the sum by the total production volume of passenger automobiles in that model year. Repeat this calculation using production volumes of light trucks to determine the separate fleet average CO_2 standards for light trucks. Round the resulting fleet average CO_2 emission standards to the nearest whole gram per mile. Averaging calculations and other compliance provisions apply as described in § 86.1865.

(2) A CO_2 target value applies for each unique combination of model type and footprint. The CO_2 target serves as the emission standard that applies throughout the useful life for each vehicle. Determine the CO_2 target values from the following table for model year 2032 and later, or from paragraph (h) of this section for model year 2031 and earlier:

Table 1 to Paragraph (c)(2)—Footprint-Based CO2 Target Values

Vehicle type	Footprint cutpoints (ft 2)		CO2 target value (g/mile)		
	Low	High	Below low cutpoint	Between cutpoints a	Above high cutpoint
Passenger automobile	45	56	71.8	$0.35 \times f + 56.2$	75.6
Light truck	45	70.0	75.7	$1.38 \times f + 13.8$	110.1

[a] Calculate the CO2 target value for vehicles between the footprint cutpoints as shown, using vehicle footprint, f, and rounding the result to the nearest 0.1 g/mile.

(d) *In-use CO_2 exhaust emission standards.* The in-use CO_2 exhaust emission standard shall be the combined city/highway carbon-related exhaust emission value calculated for the appropriate vehicle carline/subconfiguration according to the provisions of § 600.113-12(g)(4) of this chapter adjusted by the deterioration factor from § 86.1823-08(m). Multiply the result by 1.1 and round to the nearest whole gram per mile. For in-use vehicle carlines/subconfigurations for which a combined city/highway carbon-related exhaust emission value was not determined under § 600.113-12(g)(4) of this chapter, the in-use CO_2 exhaust emission standard shall be the combined city/highway carbon-related exhaust emission value calculated according to the provisions of § 600.208 of this chapter for the vehicle model type (except that total model year production data shall be used instead of sales projections) adjusted by the deterioration factor from § 86.1823-08(m). Multiply the result by 1.1 and round to the nearest whole gram per mile. For vehicles that are capable of operating on multiple fuels, except plug-in hybrid electric vehicles, a separate in-use standard shall be determined for each fuel that the vehicle is capable of operating on. The standards in this paragraph (d) apply to in-use testing performed by the manufacturer pursuant to regulations at §§ 86.1845 and 86.1846 and to in-use testing performed by EPA.

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