

40 C.F.R. § 86.1811–27

Criteria exhaust emission standards.

(a) *Applicability and general provisions.* The criteria exhaust emission standards of this section apply for both light-duty program vehicles and medium-duty vehicles, starting with model year 2027.

(1) A vehicle meeting all the requirements of this section is considered a Tier 4 vehicle meeting the Tier 4 standards. Vehicles meeting some but not all requirements are considered interim Tier 4 vehicles as described in paragraph (b)(6)(iv) of this section.

(2) The Tier 4 standards include testing over a range of driving schedules and ambient temperatures. The standards for 25 °C or 35 °C testing in paragraph (b) of this section apply separate from the -7 °C testing in paragraph (c) of this section. We may identify these standards based on nominal ambient test temperatures. Note that -7 °C testing is also identified as cold temperature testing elsewhere in this subpart.

(3) See § 86.1813 for evaporative and refueling emission standards.

(4) See § 86.1818 for greenhouse gas emission standards.

(b) *Exhaust emission standards for 25 and 35 °C testing.* Exhaust emissions may not exceed standards over several driving cycles as follows:

(1) Measure emissions using the chassis dynamometer procedures of 40 CFR part 1066, as follows:

(i) Establish appropriate load settings based on loaded vehicle weight for light-duty program vehicles and adjusted loaded vehicle weight for medium-duty vehicles (see § 86.1803).

(ii) Emission standards under this paragraph (b) apply for all the following driving cycles unless otherwise specified:

The driving cycle . . .	is identified in . . .
(A) FTP	40 CFR 1066.801(c)(1).
(B) US06	40 CFR 1066.801(c)(2).
(C) SC03	40 CFR 1066.801(c)(3).
(D) HFET	40 CFR 1066.801(c)(5).
(E) ACC II—Mid-temperature intermediate soak	40 CFR 1066.801(c)(8).
(F) ACC II—Early driveaway	40 CFR 1066.801(c)(9).

(G) ACC II High-load PHEV engine starts	40 CFR 1066.801(c)(10).
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(iii) Testing occurs at (20-30) °C ambient temperatures, except that a nominal ambient temperature of 35.0 °C applies for testing over the SC03 driving cycle. See paragraph (c) of this section for emission standards and measurement procedures that apply for cold temperature testing.

(iv) Hydrocarbon emission standards are expressed as NMOG; however, for certain vehicles you may measure exhaust emissions based on nonmethane hydrocarbon instead of NMOG as described in 40 CFR 1066.635.

(v) Measure emissions from hybrid electric vehicles (including plug-in hybrid electric vehicles) as described in 40 CFR part 1066, subpart F, except that these procedures do not apply for plug-in hybrid electric vehicles during charge-depleting operation.

(2) Fully phased-in standards apply as specified in the following table:

Table 1—To Paragraph (b)(2)—Fully Phased-In Tier 4 Criteria Exhaust Emission Standards^a

	NMOG+NOX (mg/mile) ^b	PM (mg/mile) ^c	CO (g/mile) ^d	Formaldehyde (mg/mile) ^e
Light-duty program vehicles	15	0.5	1.7	4
Medium-duty vehicles	75	0.5	3.2	6

^a Paragraphs (b)(6) and (f) of this section describe how these standards phase in for model year 2027 and later vehicles.

^b The NMOG+NOX standards apply on a fleet-average basis using discrete bin standards as described in paragraphs (b)(4) and (6) of this section.

^c PM standards do not apply for the SC03, HFET, and ACC II driving cycles specified in paragraphs (b)(1)(ii)(C) through (G) of this section.

^d Alternative CO standards of 9.6 and 25 g/mile apply for the US06 driving cycle for light-duty program vehicles and medium-duty vehicles, respectively. CO standards do not apply for the ACC II driving cycles specified in paragraph (b)(1)(ii)(E) through (G) of this section.

^e Formaldehyde standards apply only for the FTP driving cycle.

(3) The FTP standards specified in this paragraph (b) apply equally for testing at low-altitude conditions and high-altitude conditions. The US06, SC03, and HFET standards apply only for testing at low-altitude conditions.

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