

## Environmental Protection Agency

## § 86.098–28

24(b)(1) with engine-system combinations that have accumulated more than 10,000 kilometers (6,200 miles) shall be factored in accordance with 40 CFR 600.006–87(c). Complete exhaust, evaporative and refueling (if required) emission tests shall be conducted for each emission-data vehicle selection under § 86.098–24(b)(1). The Administrator may determine under § 86.094–24(f) that no testing is required.

(B) [Reserved]. For guidance see § 86.094–26.

(C) Exhaust, evaporative and refueling emissions tests for emission-data vehicle(s) selected for testing under § 86.096–24(b)(1) (i), (ii), (iii) or (iv) or § 86.098–24(b)(1)(vii)(B) shall be conducted at the mileage (2,000 mile minimum) at which the engine-system combination is stabilized for emission testing under low-altitude conditions.

(a)(3)(i)(D)–(a)(3)(ii)(B) [Reserved]. For guidance see § 86.094–26.

(a)(3)(ii)(C) Exhaust, evaporative and refueling emissions tests (as required) for emission-data vehicle(s) selected for testing under § 86.096–24(b)(1) (i), (ii), (iii), or (iv), or § 86.098–24 (b)(1)(vii)(B) shall be conducted at the mileage (2,000 mile minimum) at which the engine-system combination is stabilized for emission testing under low-altitude conditions.

(a)(3)(ii)(D)–(b)(4)(i)(C) [Reserved]. For guidance see § 86.094–26.

(b)(4)(i)(D)–(b)(4)(ii)(D) [Reserved]. For guidance see § 86.095–26.

(b)(4)(iii) [Reserved]

(b)(4)(iv)–(c)(3) [Reserved]. For guidance see § 86.094–26.

(c)(4) [Reserved]. For guidance see § 86.096–26.

(d) [Reserved]. For guidance see § 86.094–26.

[59 FR 16291, Apr. 6, 1994, as amended at 60 FR 43888, Aug. 23, 1995]

### § 86.098–28 Compliance with emission standards.

Section 86.098–28 includes text that specifies requirements that differ from § 86.094–28. Where a paragraph in § 86.094–28 is identical and applicable to § 86.098–28, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.094–28.”

(a)(1) Paragraph (a) of this section applies to light-duty vehicles.

(2) Each exhaust, evaporative and refueling emission standard (and family particulate emission limits, as appropriate) of § 86.098–8 applies to the emissions of vehicles for the appropriate useful life as defined in §§ 86.098–2 and 86.098–8.

(3) [Reserved]. For guidance see § 86.094–28.

(4) The procedure for determining compliance of a new motor vehicle with exhaust, evaporative and/or refueling emission standards (or family particulate emission limit, as appropriate) is as described in paragraphs (a)(4)(i) introductory text, (a)(4)(i)(C), (a)(4)(ii)(B) and (C), (a)(4)(iii), (a)(4)(v), (f) and (g) of this section and § 86.094–28 (a)(4)(i)(A) and (B), (a)(4)(ii)(A), (a)(4)(iv) except where specified by paragraph (a)(7) of this section for the Production AMA Durability Program.

(i) Separate emission deterioration factors shall be determined from the exhaust emission results of the durability-data vehicle(s) for each engine-system combination. Separate evaporative and/or refueling emission deterioration factors shall be determined for each evaporative/refueling emission family-emission control system combination from the testing conducted by the manufacturer (gasoline-fueled and methanol-fueled vehicles only). Separate refueling emission deterioration factors shall be determined for each evaporative/refueling emission family-emission control system combination from the testing conducted by the manufacturer (petroleum-fueled diesel cycle vehicles not certified under the provisions of paragraph (g) of this section only).

(a)(4)(i)(A) and (a)(4)(i)(B) [Reserved]. For guidance see § 86.094–28.

(a)(4)(i)(C) *Evaporative deterioration factor determination.* An evaporative emissions deterioration factor (gasoline-fueled and methanol-fueled vehicles only) shall be determined from the testing conducted as described in § 86.094–21(b)(4)(i)(A), and in accordance with paragraphs (a)(4)(i)(C) (1) and (2) of this section, for each evaporative/refueling emission family-emission control system combination to indicate the evaporative emission level at the

applicable useful life relative to the evaporative emission level at 4,000 miles as follows:

(1) Factor = Evaporative emission level at the useful life mileage for that standard minus the evaporative emission level at 4,000 miles.

(2) The factor shall be established to a minimum of two places to the right of the decimal.

(D) A refueling emissions deterioration factor (gasoline-fueled, methanol-fueled and petroleum-fueled diesel-cycle vehicles not certified under the provisions of paragraph (g) of this section) shall be determined from testing conducted and described in § 86.098-21(b)(4)(i)(B) for each evaporative/refueling emission family-emission control system combination to indicate the refueling emission level at the applicable useful life relative to the refueling emission level at 4,000 miles as follows:

(1) Factor = Refueling emission level at the useful life mileage for that standard minus the refueling emission level at 4,000 miles.

(2) The factor shall be established to a minimum of two places to the right of the decimal.

(a)(4)(ii)(A) [Reserved]. For guidance see § 86.094-28.

(a)(4)(ii)(B) The official evaporative emission test results (gasoline-fueled and methanol-fueled vehicles only) for each evaporative emission-data vehicle at the selected test point shall be adjusted by addition of the appropriate deterioration factor: *Provided*, that if a deterioration factor as computed in paragraph (a)(4)(i)(C) of this section is less than zero, that deterioration factor shall be zero for the purposes of this paragraph.

(C) The official refueling emission test results (gasoline-fueled, methanol-fueled, and petroleum-fueled diesel cycle vehicles not certified under the provisions of paragraph (g) of this section) for each refueling emission-data vehicle at the selected test point shall be adjusted by addition of the appropriate deterioration factor: *Provided*, that if a deterioration factor as computed in paragraph (a)(4)(i)(D) of this section is less than zero, that deterioration factor shall be zero for purposes of this paragraph.

(iii) The emissions to compare with the standard (or the family particulate emission limit, as appropriate) shall be the adjusted emissions of paragraphs (a)(4)(ii)(B) and (C) of this section and § 86.094-28 (a)(4)(ii)(A) for each emission-data vehicle. Before any emission value is compared with the standard (or the family particulate emission limit, as appropriate), it shall be rounded, in accordance with ASTM E 29-67, (reapproved 1980) (as referenced in § 86.094-28(a)(4)(i)(B)(2)(ii)), to two significant figures. The rounded emission values may not exceed the standard (or the family particulate emission limit, as appropriate).

(iv) [Reserved]. For guidance see § 86.094-28.

(v) Every test vehicle of an evaporative/refueling emission family must comply with the evaporative and/or refueling emission standards, as determined in paragraph (a)(4)(iii) of this section, before any vehicle in that family may be certified.

(a)(5)-(a)(6) [Reserved]. For guidance see § 86.094-28.

(a)(7) The procedure to determine the compliance of new motor vehicles in the Production AMA Durability Program described in § 86.094-13 is the same as described in paragraphs (a)(4)(iii) and (v) of this section and § 86.094-28 (a)(4)(iv). For the engine families that are included in the Production AMA Durability Program, the exhaust emission deterioration factors used to determine compliance shall be those that the Administrator has approved under § 86.094-13. The evaporative emission deterioration factor for each evaporative/refueling emission family shall be determined and applied according to paragraph (a)(4)(ii)(B) of this section. The refueling emission deterioration factor for each evaporative/refueling emission family shall be determined and applied according to paragraph (a)(4)(ii)(C) of this section. The procedures to determine the minimum exhaust emission deterioration factors required under § 86.094-13(d) are as described in paragraph (a)(7)(i) of this section and § 86.094-28 (a)(7)(ii).

(i) Separate deterioration factors shall be determined from the exhaust emission results of the durability data

vehicles for each emission standard applicable under § 86.098-8, for each engine family group. The evaporative and/or refueling emission deterioration factors for each evaporative/refueling family will be determined and applied in accordance with paragraph (a)(4) of this section.

(a)(7)(ii)-(d) [Reserved]. For guidance see § 86.094-28.

(e) [Reserved]

(f) *Fuel dispensing spitback testing waiver.* (1) Vehicles certified to the refueling emission standards set forth in § 86.098-8 are not required to demonstrate compliance with the fuel dispensing spitback standard contained in that section: *Provided*, that—

(i) The manufacturer certifies that the vehicle inherently meets the Dispensing Spitback Standard as part of compliance with the refueling emission standard; and

(ii) This certification is provided in writing and applies to the full useful life of the vehicle.

(2) EPA retains the authority to require testing to enforce compliance and to prevent non-compliance with the Fuel Dispensing Spitback Standard.

(g) *Inherently low refueling emission testing waiver.* (1) Vehicles using fuels/fuel systems inherently low in refueling emissions are not required to conduct testing to demonstrate compliance with the refueling emission standards set forth in § 86.098-8: *Provided*, that—

(i) This provision is only available for petroleum diesel fuel. It is only available if the Reid Vapor Pressure of in-use diesel fuel is equal to or less than 1 psi (7 kPa) and for diesel vehicles whose fuel tank temperatures do not exceed 130 °F (54 °C); and

(ii) To certify using this provision the manufacturer must attest to the following evaluation: “Due to the low vapor pressure of diesel fuel and the vehicle tank temperatures, hydrocarbon vapor concentrations are low and the vehicle meets the 0.20 grams/gallon refueling emission standard without a control system.”

(2) The certification required in paragraph (g)(1)(ii) of this section must be provided in writing and must apply for the full useful life of the vehicle.

(3) EPA reserves the authority to require testing to enforce compliance and to prevent noncompliance with the refueling emission standard.

(4) Vehicles certified to the refueling emission standard under this provision shall not be counted in the sales percentage compliance determinations for the 1988, 1989 and subsequent model years.

(h) *Fixed liquid level gauge waiver.* Liquefied petroleum gas-fueled vehicles which contain fixed liquid level gauges or other gauges or valves which can be opened to release fuel or fuel vapor during refueling, and which are being tested for refueling emissions, are not required to be tested with such gauges or valves open, as outlined in § 86.157-98(d)(2), provided the manufacturer can demonstrate, to the satisfaction of the Administrator, that such gauges or valves would not be opened during refueling in-use due to inaccessibility or other design features that would prevent or make it very unlikely that such gauges or valves could be opened.

[59 FR 16292, Apr. 6, 1994, as amended at 59 FR 48503, Sept. 21, 1994]

#### § 86.098-30 Certification.

Section 86.098-30 includes text that specifies requirements that differ from § 86.094-30, § 86.095-30 or § 86.096-30. Where a paragraph in § 86.094-30, § 86.095-30 or § 86.096-30 is identical and applicable to § 86.098-30. This may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.094-30.” or “[Reserved]. For guidance see § 86.095-30.” or “[Reserved]. For guidance see § 86.096-30.”.

(a)(1) and (a)(2) [Reserved]. For guidance see § 86.094-30.

(a)(3)(i) One such certificate will be issued for each engine family. For gasoline-fueled and methanol-fueled light-duty vehicles and light duty-trucks and petroleum-fueled diesel-cycle light-duty vehicles and light duty-trucks not certified under § 86.098-28(g), one such certificate will be issued for each engine family-evaporative/refueling emission family combination. Each certificate will certify compliance with no more than one set of in-use and certification standards (or family emission limits, as appropriate).