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40 CFR Ch. I (7-1-08 Edition)

(A) Y_{WSFTP} = Mass emissions per mile for a particular pollutant weighted in terms of the contributions from the FTP and US06 schedules. Values of Y_{WSFTP} are obtained for each of the exhaust emissions of NMHC, NO_x , and CO.

(B) Y_{FTP} = Weighted mass emissions per mile (Y_{wm}) based on the measured driving distance of the FTP test schedule.

(C) Y_{US06} = Calculated mass emissions per mile based on the measured driving distance of the US06 test schedule.

(ii) Composite (NMHC+ NO_x) = $Y_{WSFTP}(NMHC) + Y_{WSFTP}(NO_x)$

Where:

(A) $Y_{WSFTP}(NMHC)$ = results of paragraph (c)(2)(i) of this section for NMHC.

(B) $Y_{WSFTP}(NO_x)$ = results of paragraph (c)(2)(i) of this section for NO_x .

(d) The NO_x humidity correction factor for adjusting NO_x test results to the environmental test cell air conditioning ambient condition of 100 grains of water/pound of dry air is:

$$K_H(100) = 0.8825/[1 - 0.0047(H - 75)]$$

Where:

H = measured test humidity in grains of water/pound of dry air.

[61 FR 54900, Oct. 22, 1996, as amended at 70 FR 40434, July 13, 2005]

§ 86.164-08 Supplemental Federal Test Procedure calculations.

(a) The provisions of § 86.144-94 (b) and (c) are applicable to this section except that the NO_x humidity correction factor of § 86.144-94(c)(7)(iv) must be modified when adjusting SC03 environmental test cell NO_x results to 100 grains of water according to paragraph (d) of this section. These provisions provide the procedures for calculating mass emission results of each regulated exhaust pollutant for the test schedules of FTP, US06, and SC03.

(b) The provisions of § 86.144-94(a) are applicable to this section. These provisions provide the procedures for determining the weighted mass emissions for the FTP test schedule (Y_{wm}).

(c)(1) When the test vehicle is equipped with air conditioning, the final reported test results for the SFTP composite (NMHC+ NO_x) and optional composite CO standards shall be computed by the following formulas.

$$(i) Y_{WSFTP} = 0.35(Y_{FTP}) + 0.37(Y_{SC03}) + 0.28(Y_{US06})$$

Where:

(A) Y_{WSFTP} = Mass emissions per mile for a particular pollutant weighted in terms of the contributions from the FTP, SC03, and US06 schedules. Values of Y_{WSFTP} are obtained for each of the exhaust emissions of NMHC, NO_x and CO.

(B) Y_{FTP} = Weighted mass emissions per mile (Y_{wm}) based on the measured driving distance of the FTP test schedule.

(C) Y_{SC03} = Calculated mass emissions per mile based on the measured driving distance of the SC03 test schedule.

(D)(1) Y_{US06} = Calculated mass emissions per mile based on the measured driving distance of the US06 test schedule; or,

(2) In the case of a 2-phase US06 test run according to the provisions of § 86.159-08(f)(2)(ix) and part 600 of this chapter:

Y_{US06} = Calculated mass emissions per mile, using the summed mass emissions of the "US06 City" phase (sampled during seconds 1-130 and seconds 495-596 of the US06 driving schedule) and the "US06 Highway" phase (sampled during seconds 130-495 of the US06 driving schedule), based on the measured driving distance of the US06 test schedule.

$$(ii) \text{ Composite (NMHC+NO}_x\text{)} = Y_{WSFTP}(NMHC) + Y_{WSFTP}(NO_x)$$

Where:

(A) $Y_{WSFTP}(NMHC)$ = results of paragraph (c)(1)(i) of this section for NMHC.

(B) $Y_{WSFTP}(NO_x)$ = results of paragraph (c)(1)(i) of this section for NO_x .

(2) When the test vehicle is not equipped with air conditioning, the final reported test results for the SFTP composite (NMHC+ NO_x) and optional composite CO standards shall be computed by the following formulas.

$$(i) Y_{WSFTP} = 0.72(Y_{FTP}) + 0.28(Y_{US06})$$

Where:

(A) Y_{WSFTP} = Mass emissions per mile for a particular pollutant weighted in terms of the contributions from the FTP and US06 schedules. Values of Y_{WSFTP} are obtained for each of the exhaust emissions of NMHC, NO_x and CO.

(B) Y_{FTP} = Weighted mass emissions per mile (Y_{wm}) based on the measured driving distance of the FTP test schedule.

(C)(1) Y_{US06} = Calculated mass emissions per mile based on the measured driving distance of the US06 test schedule; or,

(2) In the case of a 2-phase US06 test run according to the provisions of § 86.159-08(f)(2)(ix) and part 600 of this chapter:

Y_{US06} = Calculated mass emissions per mile, using the summed mass emissions of the

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“US06 City” phase (sampled during seconds 1–130 and seconds 495–596 of the US06 driving schedule) and the “US06 Highway” phase (sampled during seconds 130–495 of the US06 driving schedule), based on the measured driving distance of the US06 test schedule.

$$(ii) \text{ Composite (NMHC+NO}_x\text{)} = Y_{\text{WSFTP(NMHC)}} + Y_{\text{WSFTP(NO}_x\text{)}}$$

Where:

(A) $Y_{\text{WSFTP(NMHC)}}$ = results of paragraph (c)(2)(i) of this section for NMHC.

(B) $Y_{\text{WSFTP(NO}_x\text{)}}$ = results of paragraph (c)(2)(i) of this section for NO_x .

(d) The NO_x humidity correction factor for adjusting NO_x test results to the environmental test cell air conditioning ambient condition of 100 grains of water/pound of dry air is:

$$K_H(100) = 0.8825/[1-0.0047(H-75)]$$

Where:

H = measured test humidity in grains of water/pound of dry air.

[71 FR 77922, Dec. 27, 2006]

Subpart C—Emission Regulations for 1994 and Later Model Year Gasoline-Fueled New Light-Duty Vehicles, New Light-Duty Trucks and New Medium-Duty Passenger Vehicles; Cold Temperature Test Procedures

SOURCE: 57 FR 31916, July 17, 1992, unless otherwise noted.

§ 86.201–94 General applicability.

(a) This subpart describes procedures for determining the cold temperature carbon monoxide (CO) emission from 1994 and later model year new gasoline-fueled light-duty vehicles and light-duty trucks.

(b) All of the provisions of this subpart are applicable to testing conducted at a nominal temperature of 20 °F (–7 °C).

(c) The provisions that are specially applicable to testing at temperatures between 25 °F (–4 °C) and 68 °F (20 °C) are specified in § 86.246–94 of this subpart.

§ 86.201–11 General applicability.

(a) This subpart describes procedures for determining the cold temperature carbon monoxide (CO) emissions from

1994 and later model year new gasoline-fueled light-duty vehicles and light-duty trucks, and for emissions sampling for determining fuel economy according to part 600 of this chapter for 2011 and later model year new gasoline-fueled and diesel-fueled light-duty vehicles and light-duty trucks.

(b) All of the provisions of this subpart are applicable to testing conducted at a nominal temperature of 20 °F (–7 °C).

(c) The provisions that are specifically applicable to testing at temperatures between 25 °F (–4 °C) and 68 °F (20 °C) are specified in § 86.246–94 of this subpart.

[71 FR 77922, Dec. 27, 2006]

§ 86.202–94 Definitions.

The definitions in subpart A of this part apply to this subpart.

§ 86.203–94 Abbreviations.

The abbreviations in subpart A of this part apply to this subpart.

§ 86.204–94 Section numbering; construction.

(a) In the section number, the two digits following the hyphen designate the first model year for which a section is effective. A section remains effective until superseded.

(b) *Example.* Section 86.204–94 applies to the 1994 and subsequent model years until superseded. If a § 86.204–96 is promulgated it would take effect beginning with the 1996 model year; § 86.204–94 would apply to model years 1994 through 1995.

§ 86.205–11 Introduction; structure of this subpart.

(a) This subpart describes the equipment required and the procedures to follow in order to perform gaseous exhaust emission tests on gasoline-fueled and petroleum-fueled diesel cycle (where applicable under part 600 of this chapter) light-duty vehicles and light-duty trucks. Subpart A of this part sets forth testing requirements and test intervals necessary to comply with EPA certification procedures.

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model years.