

*Total Hydrocarbon Equivalent* means the sum of the carbon mass emissions of non-oxygenated hydrocarbons, methanol, formaldehyde or other organic compounds that are separately measured, expressed as gasoline-fueled vehicle hydrocarbons. In the case of exhaust emissions, the hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1. In the case of diurnal and hot soak emissions, the hydrogen-to-carbon ratios of the equivalent hydrocarbons are 2.33:1 and 2.2:1, respectively.

\* \* \* \* \*

4. Section 86.090-3 of Subpart A is amended by removing the entry for OMHCE in paragraph (b) and adding an entry for THCE in alphabetical order to read as follows:

**§ 86.090-3 Abbreviations.**

\* \* \* \* \*

(b) \* \* \*

THCE—Total Hydrocarbon Equivalent

\* \* \* \* \*

5. Section 86.094-2 of Subpart A is amended by adding the definition of "Non-Methane Hydrocarbon Equivalent" in alphabetical order to read as follows:

**§ 86.094-2 Definitions.**

\* \* \* \* \*

*Non-Methane Hydrocarbon Equivalent* means the sum of the carbon mass emissions of non-oxygenated non-methane hydrocarbons, methanol, formaldehyde, or other organic compounds that are separately measured, expressed as gasoline-fueled vehicle hydrocarbons. In the case of exhaust emissions, the hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1. In the case of diurnal and hot soak emissions, the hydrogen-to-carbon ratios of the equivalent hydrocarbons are 2.33:1 and 2.2:1, respectively.

\* \* \* \* \*

6. Section 86.094-3 of Subpart A is amended in paragraph (b) by placing the entries in alphabetical order, removing the entry for OMNMHCE and adding an entry for NMHCE in alphabetical order to read as follows:

**§ 86.094-3 Abbreviations.**

\* \* \* \* \*

(b) \* \* \*

\* \* \* \* \*

NMHCE—Non-Methane Hydrocarbon Equivalent

\* \* \* \* \*

7. Section 86.094-9 of Subpart A is amended by revising paragraph (a)(1)(iii) to read as follows:

**§ 86.094-9 Emission standards for 1994 and later model year light-duty trucks.**

(a) \* \* \*

(1) \* \* \*

(iii) Exhaust emissions of carbon monoxide from 1994 and later model year light-duty trucks shall not exceed 0.50 percent of exhaust gas flow at curb idle at a useful life of 11 years or 120,000 miles, whichever first occurs (for Otto-cycle and methanol-natural gas- and liquefied petroleum gas-fueled diesel-cycle light-duty trucks only).

\* \* \* \* \*

8. Section 86.094-21 of Subpart A is amended by adding paragraph (j) to read as follows:

**§ 86.094-21 Application for certification.**

\* \* \* \* \*

(j) For methanol-fueled vehicles, the manufacturer shall specify:

(1) Whether the vehicle is a flexible fuel vehicle or a dedicated vehicle (manufacturers must obtain advance approval from the Administrator to classify methanol-fueled vehicles that can use gasoline as dedicated vehicles); and

(2) The fuel(s) (*i.e.*, the percent methanol) for which the vehicle was designed.

9. Section 86.096-21 of Subpart A is amended by redesignating paragraphs (j) and (k) as paragraphs (k) and (l), respectively, removing paragraphs (c) through (i), and adding paragraphs (c) through (j) to read as follows:

**§ 86.096-21 Application for certification.**

\* \* \* \* \*

(c) through (j) [Reserved]. For guidance see § 86.094-21.

\* \* \* \* \*

10. Section 86.097-9 of Subpart A is amended by revising paragraph (a)(1)(iii) to read as follows:

**§ 86.097-9 Emission standards for 1997 and later model year light-duty trucks.**

(a) \* \* \*

(1) \* \* \*

(iii) Exhaust emissions of carbon monoxide from 1997 and later model year light-duty trucks shall not exceed 0.50 percent of exhaust gas flow at curb idle at a useful life of 11 years or 120,000 miles, whichever first occurs (for Otto-cycle and methanol-natural gas- and liquefied petroleum gas-fueled diesel-cycle light-duty trucks only).

\* \* \* \* \*

11. Section 86.098-21 of Subpart A is amended by removing paragraphs (c) through (k) and adding paragraphs (c) through (l) to read as follows:

**§ 86.098-21 Application for certification.**

\* \* \* \* \*

(c) through (j) [Reserved]. For guidance see § 86.094-21.

(k) and (l) [Reserved]. For guidance see § 86.096-21.

12. Section 86.107-90 of Subpart B is amended by revising the introductory text of paragraph (a)(2)(i) and adding paragraph (a)(2)(iii) to read as follows:

**§ 86.107-90 Sampling and analytical system; evaporative emissions.**

(a) \* \* \*

(2) \* \* \* (i) For gasoline- and methanol-fueled vehicles a hydrocarbon analyzer utilizing the hydrogen flame ionization principle (FID) shall be used to monitor the atmosphere within the enclosure (a heated FID (HFID)(235° ±15°F (113 ±8°C)) is recommended for methanol-fueled vehicles). Instrument bypass flow may be returned to the enclosure. The FID shall have a response time to 90 percent of final reading of less than 1.5 seconds, and be capable of meeting performance requirements expressed as a function of Cstd: where Cstd is the specific enclosure hydrocarbon level, in ppm, corresponding to the evaporative emission standard:

\* \* \* \* \*

(iii) The methanol sampling system shall be designed such that, if a test vehicle emitted the maximum allowable level of methanol (based on all applicable standards) during any phase of the test, the measured concentration in the primary impinger would exceed either 25 mg/l or a concentration equal to 25 times the limit of detection for the GC analyzer, and such that the primary impinger collects at least 90 percent of the analyte in the samples. The remaining analyte shall be collected by the secondary impinger. This requirement does not apply to dilution air samples, since they do not require secondary impingers, or to samples in which the concentrations approach the limit of detection. The provisions of this paragraph apply to the design of sampling systems, not to individual tests.

\* \* \* \* \*

13. Section 86.107-96 of Subpart B is amended by revising paragraph (b)(1) and adding paragraph (b)(3) to read as follows:

**§ 86.107-96 Sampling and analytical systems; evaporative emissions.**

\* \* \* \* \*

(b) \* \* \*

(1) For gasoline fueled, natural gas-fueled, liquefied petroleum gas-fueled and methanol-fueled vehicles a hydrocarbon analyzer utilizing the hydrogen flame ionization principle (FID) shall be used to monitor the