

**§ 86.114-79**

**40 CFR Ch. I (7-1-04 Edition)**

commercially available liquefied petroleum gas fuel.

(i) Manufacturers shall recommend the liquefied petroleum gas fuel to be used for testing and service accumulation.

(ii) The Administrator shall determine the liquefied petroleum gas fuel to be used for testing and service accumulation.

(2) Other liquefied petroleum gas fuels may be used for testing and service accumulation provided:

(i) They are commercially available; and

(ii) Information, acceptable to the Administrator, is provided to show that only the designated fuel would be used in customer service; and

(iii) Written approval from the Administrator of the fuel specifications must be provided prior to the start of testing.

(3) The specification range of the fuel to be used under paragraphs (f)(1) and (f)(2) of this section shall be measured in accordance with ASTM D2163-61 (Incorporated by reference; see § 86.1) and reported in accordance with § 86.094-21(b)(3) or § 86.1844-01 as applicable.

(g) Fuels not meeting the specifications set forth in this section may be used only with the advance approval of the Administrator.

[59 FR 48506, Sept. 21, 1994, as amended at 60 FR 34342, June 30, 1995; 62 FR 47120, Sept. 5, 1997; 63 FR 24448, May 4, 1998; 64 FR 23921, May 4, 1999; 65 FR 8277, Feb. 18, 2000]

**§ 86.114-79 Analytical gases.**

(a) *Analyzer gases.* (1) Gases for the CO and CO<sub>2</sub> analyzers shall be single blends of CO and CO<sub>2</sub> respectively using nitrogen as the diluent.

(2) Gases for the hydrocarbon analyzer shall be single blends of propane using air as the diluent.

(3) Gases for NO<sub>x</sub> analyzer shall be single blends of NO named as NO<sub>x</sub>, with a maximum NO<sub>2</sub> concentration of 5 percent of the nominal value, using nitrogen as the diluent.

(4) Fuel for the evaporative emission enclosure FID shall be a blend of 40 ±2% hydrogen with the balance being helium. The mixture shall contain less than 1 ppm equivalent carbon response. 98 to 100 percent hydrogen fuel may be

used with advance approval by the Administrator.

(5) The allowable zero gas (air or nitrogen) impurity concentrations shall not exceed 1 ppm equivalent carbon response, 1 ppm carbon monoxide, 0.04 percent (400 ppm) carbon dioxide and 0.1 ppm nitric oxide.

(6) "Zero grade air" includes artificial "air" consisting of a blend of nitrogen and oxygen with oxygen concentrations between 18 and 21 mole percent.

(7) The use of precision blending devices (gas dividers) to obtain the required calibration, as defined below, is acceptable, provided that the calibration curves they produce name a calibration gas within 2 percent of its certified concentration. This verification shall be performed at between 15 and 50 percent of the full scale concentration of the range and shall be included with each gas calibration incorporating a blending device. Alternative procedures to verify the validity of the analyzer calibration curves generated using a gas divider are acceptable provided the procedures are approved in advance by the Administrator.

(b) Calibration gases shall be traceable to within 1 percent of NBS gas standards, or other gas standards which have been approved by the Administrator.

(c) Span gases shall be accurate to within 2 percent of true concentration, where true concentration refers to NBS gas standards, or other gas standards which have been approved by the Administrator.

[42 FR 32954, June 28, 1977, as amended at 43 FR 52920, Nov. 14, 1978; 54 FR 2121, Jan. 19, 1989]

**§ 86.114-94 Analytical gases.**

(a) *Analyzer gases.* (1) Gases for the CO and CO<sub>2</sub> analyzers shall be single blends of CO and CO<sub>2</sub> respectively using nitrogen as the diluent.

(2) Gases for the THC analyzer shall be:

(i) Single blends of propane using air as the diluent; and

(ii) Optionally, for response factor determination, single blends of methanol using air as the diluent.

(3) Gases for the methane analyzer shall be single blends of methane using air as the diluent.