(b)(4) through (g) [Reserved]. For guidance see § 86.1313–94.

[66 FR 5180, Jan. 18, 2001]

§ 86.1314–84 Analytical gases.

(a) Gases for the CO and CO_2 analyzers shall be single blends of CO and CO_2, respectively, using nitrogen as the diluent.

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

(c) Gases for the NO_X analyzer shall be single blends of NO named as NO_X with a maximum NO_2 concentration of 5 percent of the nominal value using nitrogen as the diluent.

(d) Fuel for the FID shall be a blend of 40±2 percent 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 of the Administrator.

(e) 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.

(f)(1) "Zero-grade air" includes artificial "air" consisting of a blend of nitrogen and oxygen with oxygen concentrations between 18 and 21 mole percent.

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

(3) Span gases shall be accurate to within ±2 percent of NBS gas standards, or other gas standards which have been approved by the Administrator.

(g) The use of precision blending devices (gas dividers) to obtain the required calibration gas concentrations is acceptable, provided that the blended gases are accurate to within ±1.5 percent of NBS gas standards, or other gas standards which have been approved by the Administrator. This accuracy implies that primary gases used for blending must be "named" to an accuracy of at least ±1 percent, traceable to NBS or other approved gas standards.

[48 FR 52210, Nov. 16, 1983, as amended at 49 FR 48144, Dec. 10, 1984]

§ 86.1314–94 Analytical gases.

(a) Gases for the CO and CO_2 analyzers shall be single blends of CO and CO_2, respectively, using nitrogen as the diluent.

(b) Gases for the hydrocarbon analyzer shall be:

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

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

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

(d) Gases for the NO_X analyzer shall be single blends of NO named as NO_X with a maximum NO_2 concentration of five percent of the nominal value using nitrogen as the diluent.

(e) Fuel for FIDs and HFIDs and methane analyzers shall be a blend of 40 ±2 percent 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.

(f) 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.

(g)(1) "Zero-grade air" includes artificial "air" consisting of a blend of nitrogen and oxygen with oxygen concentrations between 18 and 21 mole percent.

(2) Calibration gases (not including methanol) shall be traceable to within one percent of NIST (formerly NBS) gas standards, or other gas standards which have been approved by the Administrator.

(3) Span gases (not including methanol) shall be accurate to within two percent of true concentration, where true concentration refers to NIST (formerly NBS) gas standards, or other gas standards which have been approved by the Administrator.

(4) Methanol in air gases used for response factor determination shall:

(i) Be traceable to within ±2 percent of NIST (formerly NBS) gas standards, or other standards which have been approved by the Administrator; and

(ii) Remain within ±2 percent of the labeled concentration. Demonstration