

TABLE N07-2—Continued

Item		ASTM test method No.	Type 1-D	Type 2-D
(D) 90 pct. point	°F ..... (°C) .....	D86 .....	460-520 ..... (237.8-271-1) .....	560-630 ..... (293.3-332.2) .....
(E) EP	°F ..... (°C) .....	D86 .....	500-560 ..... (260.0-293.3) .....	610-690 ..... (321.1-365.6) .....
(iv) Gravity	°API .....	D287 .....	40-44 .....	32-37
(v) Total sulfur	ppm .....	D2622 .....	7-15 .....	7-15
(vi) Hydrocarbon composition: (A) Aromatics, minimum (Remainder shall be paraffins, naphthenes, and olefins).	pct. ....	D5186 .....	8 .....	27
(vii) Flashpoint, min	°F ..... (°C) .....	D93 .....	120 ..... (48.9) .....	130 ..... (54.4) .....
(viii) Viscosity	centistokes .....	D445 .....	1.6-2.0 .....	2.0-3.2

(3) Petroleum Diesel fuel for diesel engines meeting the specifications in table N07-3, or substantially equivalent specifications approved by the Administrator, shall be used in service accumulation. The grade of petroleum diesel fuel used shall be commercially designated as "Type 2-D" grade diesel fuel except that fuel commercially designated as "Type 1-D" grade Diesel fuel may be substituted provided that the manufacturer has submitted evi-

dence to the Administrator demonstrating to the Administrator's satisfaction that this fuel will be the predominant in-use fuel. Such evidence could include such things as copies of signed contracts from customers indicating the intent to purchase and use "Type 1-D" grade diesel fuel as the primary fuel for use in the engines or other evidence acceptable to the Administrator. Table N07-03 follows:

TABLE N07-3

Item		ASTM test method No.	Type 1-D	Type 2-D
(i) Cetane Number	.....	D613 .....	40-56 .....	38-58
(ii) Cetane Index	.....	D976 .....	min. 40 .....	min. 40
(iii) Distillation range: 90 pct. point	°F ..... (°C) .....	D86 .....	440-530 ..... (226.7-276-7) .....	540-630 ..... (293.3-332.2) .....
(iv) Gravity	°API .....	D287 .....	39-45 .....	30-39
(v) Total sulfur	ppm .....	D2622 .....	7-15 .....	7-15
(vi) Flashpoint, min	°F ..... (°C) .....	D93 .....	130 ..... (54.4) .....	130 ..... (54.4) .....
(vii) Viscosity	centistokes .....	D445 .....	1.2-2.2 .....	1.5-4.5

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

[66 FR 5180, Jan. 18, 2001]

**§ 86.1314-94 Analytical gases.**

(a) 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.

(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<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 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  $\pm 2$  percent of NIST (formerly NBS) gas standards, or other standards which have been approved by the Administrator; and

(ii) Remain within  $\pm 2$  percent of the labeled concentration. Demonstration of stability shall be based on a quarterly measurement procedure with a precision of  $\pm 2$  percent (two standard deviations), or other method approved by the Administrator. The measurement procedure may incorporate multiple measurements. If the true concentration of the gas changes by more than two percent, but less than ten percent, the gas may be relabeled with the new concentration.

(h) 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  $\pm 1.5$  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  $\pm 1$  percent, traceable

to NBS or other approved gas standards.

[59 FR 48530, Sept. 21, 1994, as amended at 60 FR 34371, June 30, 1995]

**§ 86.1316-94 Calibrations; frequency and overview.**

(a) Calibrations shall be performed as specified in §§ 86.1318 through 86.1326.

(b) At least monthly or after any maintenance which could alter calibration, the following calibrations and checks shall be performed:

(1) Calibrate the hydrocarbon analyzer, carbon dioxide analyzer, carbon monoxide analyzer, and oxides of nitrogen analyzer (certain analyzers may require more frequent calibration depending on the equipment and use). New calibration curves need not be generated each month if the existing curve meets the requirements of §§ 86.1321 through 86.1324.

(2) Calibrate the engine dynamometer flywheel torque and speed measurement transducers, and calculate the feedback signals to the cycle verification equipment.

(3) Check the oxides of nitrogen converter efficiency.

(c) At least weekly or after any maintenance which could alter calibration, the following checks shall be performed:

(1) Perform a CVS system verification.

(2) Check the shaft torque feedback signal at steady-state conditions by comparing:

(i) Shaft torque feedback to dynamometer beam load; or

(ii) By comparing in-line torque to armature current; or

(iii) By checking the in-line torque meter with a dead weight per § 86.1308(e).

(d) The CVS positive displacement pump or critical flow venturi shall be calibrated following initial installation, major maintenance or as necessary when indicated by the CVS system verification (described in § 86.1319).

(e) Sample conditioning columns, if used in the CO analyzer train, should be checked at a frequency consistent with observed column life or when the indicator of the column packing begins to show deterioration.