(d) A raw exhaust sampling system as specified in 40 CFR part 1065 is permitted.

§ 86.1511 Exhaust gas analysis system.

(a) Analyzers used for this subpart shall meet the following specifications:

(1) The analyzer used shall conform to the accuracy provisions of 40 CFR part 1065, subparts C, D, and F.

(2) The resolution of the readout device(s) for the range specified in paragraph (a)(1) of this section shall be equal to or less than 0.05 percent for the CO analyzer.

(3) For the range specified in paragraph (a)(1) of this section, the precision shall be less than $\pm 3\%$ of full-scale deflection. The precision is defined as two times the standard deviation of five repetitive responses to a given calibration gas.

(4) For the range specified in paragraph (a)(1) of this section, the mean response to a zero calibration gas shall not exceed $\pm 3\%$ of full-scale deflection during a 1-hour period.

(5) For the range specified in paragraph (a)(1) of this section the drift of the mean calibration response shall be less than $\pm 3\%$ of full scale during a 1-hour period. The calibration response is defined as the analyzer response to a calibration gas after the analyzer has been spanned by the electrical spanning network at the beginning of the 1-hour period.

(6) The analyzer shall respond to an instantaneous step change at the entrance to the sampling system with a response equal to 90 percent of that step change within 15 seconds or less on the range specified in paragraph (a)(1) of this section. The step change shall be at least 60 percent of full-scale deflection.

(7) The interference gases listed shall individually or collectively produce an analyzer reading less than $\pm 2\%$ of full scale on the range specified in paragraph (a)(1) of this section.

<table>
<thead>
<tr>
<th>Interference gas</th>
<th>Concentration</th>
<th>Applicable analyzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>14 percent</td>
<td>CO</td>
</tr>
<tr>
<td>CH₄</td>
<td>1 percent</td>
<td>CO</td>
</tr>
<tr>
<td>H₂O</td>
<td>Sat. vapor at 100 °F</td>
<td>CO</td>
</tr>
<tr>
<td>NOₓ</td>
<td>1,000 ppm</td>
<td>CO</td>
</tr>
<tr>
<td>O₃</td>
<td>5 percent</td>
<td>CO</td>
</tr>
</tbody>
</table>

(b) The inclusion of a raw CO₂ analyzer as specified in 40 CFR part 1065 is required in order to accurately determine the CVS dilution factor.

§ 86.1513 Fuel specifications.

The requirements of this section are set forth in 40 CFR part 1065, subpart H, for heavy-duty engines and in § 86.113–94 for light-duty trucks.

§ 86.1514 Analytical gases.

(a) The final idle emission test results shall be reported as percent for carbon monoxide on a dry basis.

(b) If the raw CO sampling system specified in 40 CFR part 1065 is used, the analytical gases specified in 40 CFR part 1065, subpart H, shall be used.

(c) If a CVS sampling system is used, the analytical gases specified in 40 CFR part 1065, subpart H, shall be used.

§ 86.1516 Calibration; frequency and overview.

(a) Calibrations shall be performed as specified in §§ 86.1518–84 through 86.1526–84.

(b) At least monthly or after any maintenance which could alter calibration, check the calibration of the CO