

**§ 86.140-82**

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

(f) The net weight ( $P_c$ ) is the gross weight minus the tare weight.

NOTE: Should the sample on the filter contact the petri dish or any other surface, the test is void and must be rerun.

[54 FR 14532, Apr. 11, 1989]

**§ 86.140-82 Exhaust sample analysis.**

The following sequence of operations shall be performed in conjunction with each series of measurement Y:

(a) For CO, CO<sub>2</sub>, NO<sub>x</sub> and gasoline HC:

(1) Zero the analyzers and obtain a stable zero reading. Recheck after tests.

(2) Introduce span gases and set instrument gains. In order to avoid errors, span and calibrate at the same flow rates used to analyze the test sample. Span gases should have concentrations equal to 75 to 100 percent of full scale. If gain has shifted significantly on the analyzers, check the calibrations. Show actual concentrations on chart.

(3) Check zeros; repeat the procedure in paragraphs (a) (1) and (2) of this section if required.

(4) Check flow rates and pressures.

(5) Measure HC, CO, CO<sub>2</sub> and NO<sub>x</sub> concentrations of samples.

(6) Check zero and span points. If difference is greater than 2 percent of full scale, repeat the procedure in paragraphs (a) (1) through (5) of this section.

(b) For diesel HC:

(1) Zero HFID analyzer and obtain a stable zero reading.

(2) Introduce span gas and set instrument gains. Span gas should have concentration equal to 75 to 100 percent of full scale.

(3) Check zero as in paragraph (b)(1) of this section.

(4) Introduction of zero and span gas into the analyzer can be accomplished by either of the following methods:

(i) Close heated valve in HC sample (see Figures B82-3 or B82-4), and allow gases to enter HFID. Extreme care should be taken not to introduce gases under high pressure.

(ii) Connect zero and span line directly to HC sample probe and introduce gases at a flow rate greater than 125 percent of the HFID flow rate with the CVS blower operating (see figures B82-3A or B82-4A). Excess flow must be allowed to exit probe inlet.

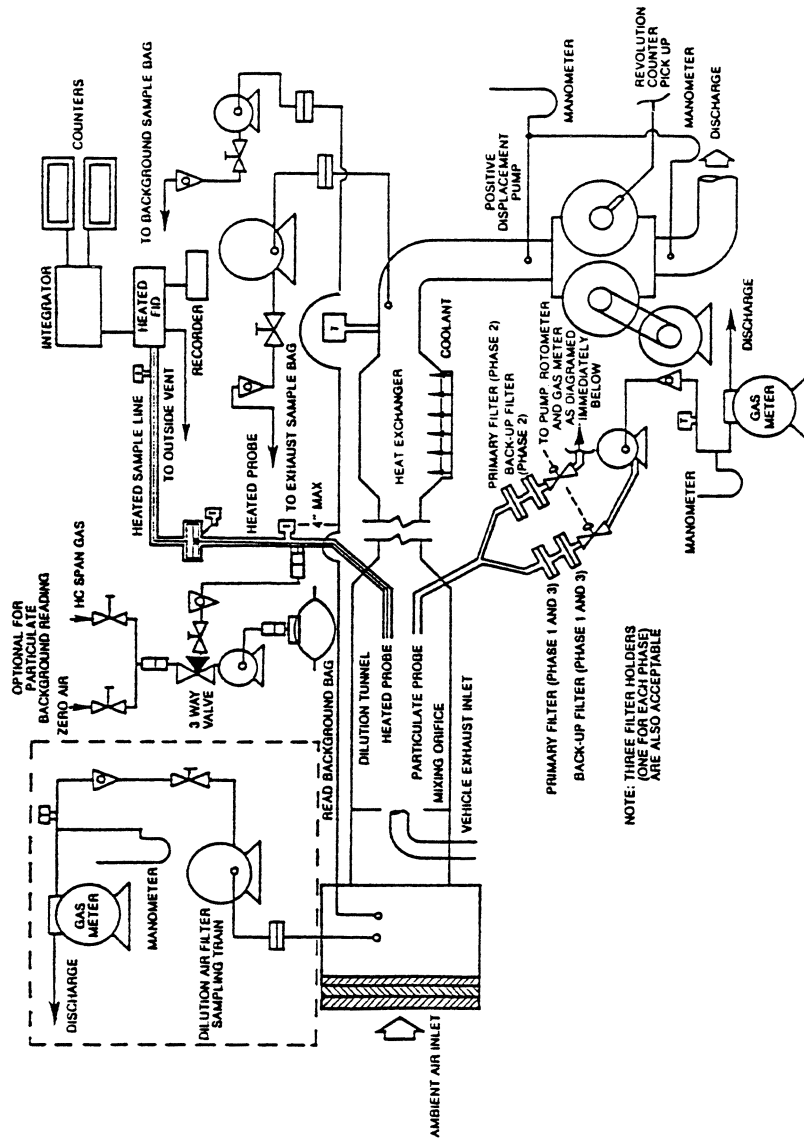


FIGURE B82-3A  
GASEOUS AND PARTICULATE EMISSIONS SAMPLING SYSTEM (PDP-CVS)  
(FOR DIESEL VEHICLES ONLY)

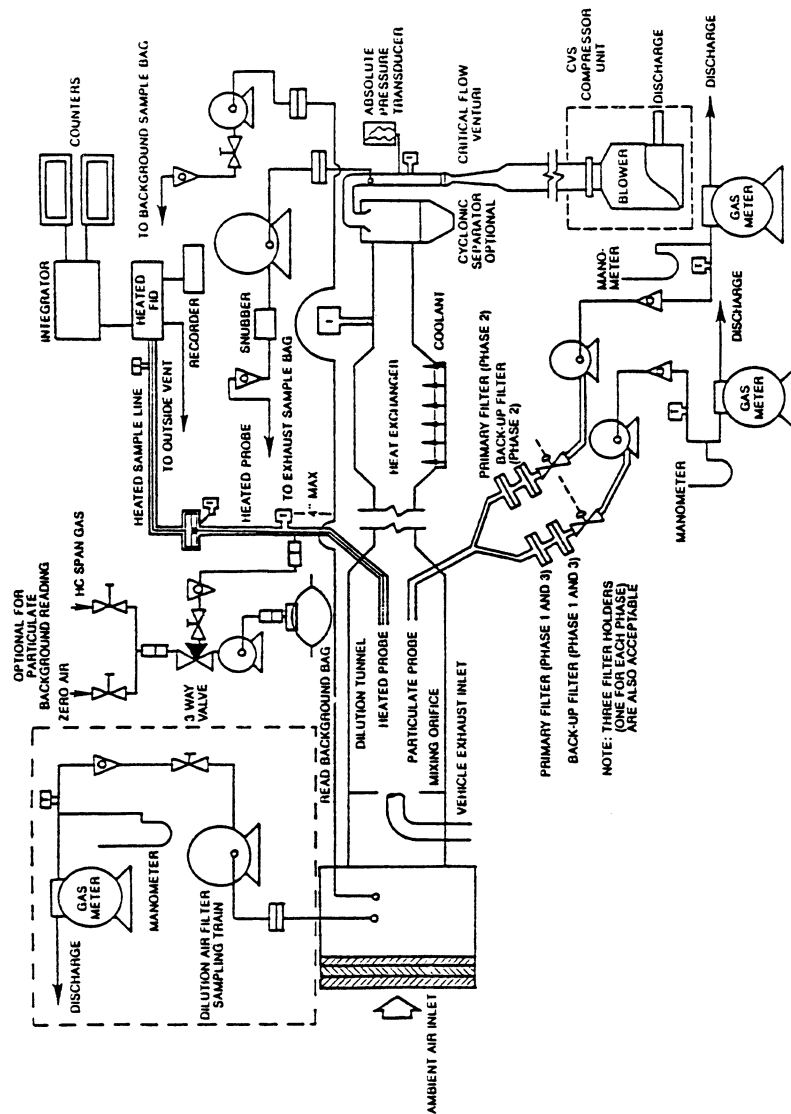


FIGURE B82-4A  
GASEOUS AND PARTICULATE EMISSIONS SAMPLING SYSTEM (CFV-CVS)  
(FOR DIESEL VEHICLES ONLY)

NOTE: In order to minimize errors, HFID flow rate and pressure during zero and span (and background bag reading) must be exactly the same as that used during testing.

(5) Continuously record (integrate electronically if desired) dilute hydrocarbon emissions levels during test. Background samples are collected in sample bags and analyzed as in paragraph (4)(i) or (4)(ii) of this section.

(6) Check zero and span as in paragraph (b)(1) through (b)(4)(i) or (4)(ii) of this section. If difference is greater than 2 percent of full scale, void test and check for HC "hangup" or electronic drift in analyzer.

[45 FR 14520, Mar. 5, 1980, as amended at 54 FR 2122, Jan. 19, 1989]