through (p)(7), and removing paragraph (p)(8), to read as follows:

§ 86.142–90 Records required.

* * * * *

(p) * * *

(1) Specification of the methanol-fuel or methanol-fuel mixtures used during the test.

(2) Volume of sample passed through the methanol sampling system and the volume of deionized water in each impinger.

(3) The concentration of the GC analyses of the test samples (methanol).

(4) Volume of sample passed through the formaldehyde sampling system and the volume of DNPH solution used.

(5) The concentration of the HPLC analysis of the test sample (formaldehyde).

(6) The temperatures of the sample lines before the HFID and the impinger, the temperature of the exhaust transfer duct (as applicable), and the temperature of the control system of the heated hydrocarbon detector.

(7) A continuous measurement of the dew point of the raw and diluted exhaust. This requirement may be omitted if the temperatures of all heated

lines are kept above 220°F, or if the manufacturer performs an engineering analysis demonstrating that the temperature of the heated systems remains above the maximum dew point of the gas stream throughout the course of the test.

* * * * *

31. Section 86.143–90 of Subpart B is amended by revising paragraphs (a)(1) and (a)(2)(iii) to read as follows:

§ 86.143–90 Calculations; evaporative emissions.

(a) * * *

(1) For methanol:

$$M_{CH3OH} = V_n X \times \frac{T_{Ef}}{\left(V_{Ef} \times T_{SHEDf}\right)} \times \left[\left(C_{MS1f} \times AV_{1f}\right) + \left(C_{MS2f\times} AV_{2f}\right)\right]$$

$$- \frac{T_{Ei}}{\left(V_{Ei} \times T_{SHEDi}\right)} \times \left[\left(C_{MS1i} \times AV_{1i}\right) + \left(C_{MS2i} \times AV_{2i}\right)\right]$$

Where:

(i) M_{CH3OH} = Methanol mass change, μg.

(ii) V_n = Net enclosure volume, ft³, as determined by subtracting 50 ft³ (1.42 m³) (volume of vehicle with trunk and windows open) from the enclosure volume. A manufacturer may use the measured volume of the vehicle (instead of the nominal 50 ft³) with advance approval by the Administrator: *Provided,* the

measured volume is determined and used for all vehicles tested by that manufacturer.

(iii) T_E = Temperature of sample withdrawn, °R.

(iv) V_E = Volume of sample withdrawn, ft³.

(v) T_{SHED} = Temperature of SHED, °R

(vi) C_{MS} = GC concentration of sample, μg/ml.

(vii) AV = Volume of absorbing reagent in impinger.

(viii) P_B = Barometric pressure at time of sampling, in. Hg.

(ix) i = Initial sample.

(x) f = Final sample.

(xi) 1 = First impinger.

(xii) 2 = Second impinger.

(2) * * *

(iii) C_{CH3OH} = Methanol concentration as ppm carbon.

$$= \frac{1.501 \times 10^{-3} \times T}{P_B \times V_E} \times \left[\left(C_{S1} \times AV_1\right) + \left(C_{S2} \times AV_2\right)\right]$$

* * * * *

32. Section 86.143–96 of Subpart B is amended by revising paragraphs (b)(1)(i) and (b)(1)(ii)(C) to read as follows:

§ 86.143–96 Calculations; evaporative emissions.

* * * * *

(b) * * *

(1) * * *

(i) For methanol:

$$M_{CH3OH} = V_n \times \frac{T_{Ef}}{\left(V_{Ef} \times T_{SHEDf}\right)} \times \left[\left(C_{MS1f} \times AV_{1f}\right) + \left(C_{MS2f} \times AV_{2f}\right)\right]$$

$$- \frac{T_{Ei}}{\left(V_{Ei} \times T_{SHEDi}\right)} \times \left[\left(C_{MS1i} \times AV_{1i}\right) + \left(C_{MS2i} \times AV_{2i}\right)\right] + \left(M_{CH3OH,OUT,} - M_{CH3OH,\in}\right)$$

Where:

(A) M_{CH3OH} = Methanol mass change, μg.

(B) V_n = Net enclosure volume, ft³, as determined by subtracting 50 ft³ (1.42 m³) (volume of vehicle with trunk and windows open) from the enclosure volume. A manufacturer may use the measured volume of

the vehicle (instead of the nominal 50 ft³) with advance approval by the Administrator: *Provided,* the measured volume is determined and used for all vehicles tested by that manufacturer.

(C) T_E = Temperature of sample withdrawn, °R.

(D) V_E = Volume of sample withdrawn, ft³.

(E) T_{SHED} = Temperature of SHED, °R

(F) C_{MS} = GC concentration of sample, μg/ml.

(G) AV = Volume of absorbing reagent in impinger.

(H) P_B = Barometric pressure at time of sampling, in. Hg.