

measured quantity of aldehyde is sufficiently greater than the minimum limit of quantitation of the test method for at least a portion of the exhaust test procedure. The limit of quantitation is determined using the technique defined in §80.55(d).

(c) Each of the impinger samples are quantitatively transferred to a 25 mL volumetric flask (5 mL more than the sample impinger volume) and brought to volume with ACN. The cartridge samples are eluted in reversed direction by gravity feed with 6mL of ACN. The eluate is collected in a graduated test tube and made up to the 5mL mark with ACN. Both the impinger and cartridge samples must be analyzed by HPLC without additional sample preparation.

(d) The analysis of the aldehyde derivatives collected is accomplished with a high performance liquid chromatograph (HPLC). Standards consisting of the hydrazone derivative of formaldehyde and acetaldehyde are used to determine the response, repeatability, and limit of quantitation of the HPLC method chosen for acetaldehyde and formaldehyde.

(e) Other sampling and analytical techniques will be allowed if they can be proven to have equal specificity and equal or better limits of quantitation. Data from alternative methods that can be demonstrated to have equivalent or superior limits of detection, precision, and accuracy may be accepted by the Administrator with individual prior approval.

§§ 80.57–80.58 [Reserved]

§ 80.59 General test fleet requirements for vehicle testing.

(a) The test fleet must consist of only 1989–91 MY vehicles which are technologically equivalent to 1990 MY vehicles, or of 1986–88 MY vehicles for which no changes to the engine or exhaust system that would significantly affect emissions have been made through the 1990 model year. To be technologically equivalent vehicles at minimum must have closed-loop systems and possess adaptive learning.

(b) No maintenance or replacement of any vehicle component is permitted except when necessary to ensure oper-

ator safety or as specifically permitted in §80.60 and §80.61. All vehicle maintenance procedures must be reported to the Administrator.

(c) Each vehicle in the test fleet shall have no fewer than 4,000 miles of accumulated mileage prior to being included in the test program.

[59 FR 7813, Feb. 16, 1994, as amended at 59 FR 36962, July 20, 1994]

§ 80.60 Test fleet requirements for exhaust emission testing.

(a) Candidate vehicles which conform to the emission performance requirements defined in paragraphs (b) through (d) of this section shall be obtained directly from the in-use fleet and tested in their as-received condition.

(b) Candidate vehicles for the test fleet must be screened for their exhaust VOC emissions in accordance with the provisions in §80.62.

(c) On the basis of pretesting pursuant to paragraph (b) of this section, the test fleet shall be subdivided into two emitter group sub-fleets: the normal emitter group and the higher emitter group.

(1) Each vehicle with an exhaust total hydrocarbon (THC) emissions rate which is less than or equal to twice the applicable emissions standard shall be placed in the normal emitter group.

(2) Each vehicle with an exhaust THC emissions rate which is greater than two times the applicable emissions standard shall be placed in the higher emitter group.

(d) The test vehicles in each emitter group must conform to the requirements of paragraphs (d)(1) through (4) of this section.

(1) Test vehicles for the normal emitter sub-fleet must be selected from the list shown in this paragraph (d)(1). This list is arranged in order of descending vehicle priority, such that the order in which vehicles are added to the normal emitter sub-fleet must conform to the order shown (e.g., a ten-vehicle normal emitter group sub-fleet must consist of the first ten vehicles listed in this paragraph (d)(1)). If more vehicles are tested than the minimum number of vehicles required for the normal emitter sub-fleet, additional vehicles are to