§ 86.1110–87  Sample selection.

(a) Engines or vehicles comprising a test sample which are required to be tested pursuant to a PCA in accordance with this subpart will be selected at the location and in the manner specified by EPA. If a manufacturer determines that the test engines or vehicles cannot be selected in the manner specified by EPA, an alternative selection procedure may be employed, provided that the manufacturer requests approval of the alternative procedure in advance of the start of test sample selection and that the Administrator approves the procedure.

(b) The manufacturer shall have assembled the test engines or vehicles of the configuration selected for testing using its normal mass production processes for engines or vehicles to be distributed into commerce. In the case of heavy-duty engines, if the test engines are selected at a location where they do not have their operational and emission control systems installed, EPA will specify the manner and location for selection of components to complete assembly of the engines. The manufacturer shall assemble these components onto the test engines using normal assembly and quality control procedures as documented by the manufacturer.

(c) No quality control, testing, or assembly procedures will be used on the completed test engine or vehicle or any portion thereof, including parts and subassemblies, that will not be used during the production and assembly of all other engines or vehicles of that configuration.

(d) The EPA Enforcement Officers may specify that they, rather than the manufacturer, will select the test engines or vehicles.

(e) The order in which test engines or vehicles are selected determines the working hours on an EPA Enforcement Officer's request to inform the EPA Enforcement Officer of how the facility operates and to answer his or her questions. Any employee whom an EPA Enforcement Officer requests the manufacturer to cause to appear for questioning will be entitled to be accompanied, represented and advised by counsel.

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(e) The order in which test engines or vehicles are selected determines the...
order in which test results are to be used in applying the PCA testing plan in accordance with §86.1112–87.

(f) The manufacturer shall keep on hand all engines or vehicles comprising the test sample until such time as a compliance level is determined in accordance with §86.1112–87(a) except that the manufacturer may ship any tested engine or vehicle which has not failed in accordance with §86.1112–87(f)(1). However, once the manufacturer ships any test engine or vehicle, it relinquishes the prerogative to conduct retests as provided in §86.1111–87(i).

§ 86.1111–87 Test procedures for PCA testing.

(a)(1) For heavy-duty engines, the prescribed test procedure for PCA testing is the Federal Test Procedure as described in subparts N, I, and P of this part.

(2) For heavy-duty vehicles, the prescribed test procedure for PCA testing is described in subpart M of this part.

(3) For light-duty trucks, the prescribed test procedure for PCA testing is the Federal Test Procedure as described in subparts B and P of this part.

(4) During the testing of heavy-duty diesel engines, the manufacturer shall decide for each engine, prior to the start of the initial cold cycle, whether the measurement of background particulate is required for the cold and hot cycles to be valid. The manufacturer may choose to have different requirements for the cold and hot cycles. If a manufacturer chooses to require the measurement of background particulate, failure to measure background particulate shall void the test cycle regardless of the test results. If a test cycle is void, the manufacturer shall retest using the same validity requirements of the initial test.

(5) When testing light-duty trucks, the following exceptions to the test procedures in subpart B are applicable:

(i) The manufacturer may use gasoline test fuel meeting the specifications of paragraph (a) of §86.113 for mileage accumulation. Otherwise, the manufacturer may use fuels other than those specified in this section only with advance approval of the Administrator.

(ii) The manufacturer may measure the temperature of the test fuel at other than the approximate midvolume of the fuel tank, as specified in paragraph (a) of §86.131, and may drain the test fuel from other than the lowest point of the fuel tank, as specified in paragraph (b) of §86.131, with the advance approval of the Administrator.

(iii) The manufacturer may perform additional preconditioning on PCA test vehicles other than the preconditioning specified in §86.132 only if the additional preconditioning has been performed on certification test vehicles of the same configuration.

(iv) The manufacturer shall perform the heat build procedure 11 to 34 hours following vehicle preconditioning rather than according to the time period specified in paragraph (a) of §86.133.

(v) The manufacturer may substitute slave tires for the drive wheel tires on the vehicle as specified in paragraph (e) of §86.135, provided that the slave tires are the same size as the drive wheel tires.

(vi) The cold start exhaust emission test described in §86.137 shall follow the heat build procedure described in §86.133 by not more than one hour.

(vii) In performing exhaust sample analysis under §86.140:

(A) When testing diesel vehicles, the manufacturer shall allow a minimum of 20 minutes warm-up for the HC analyzer, and a minimum of 2 hours warm-up for the CO, CO₂ and NOₓ analyzers. [Power is normally left on for infrared and chemiluminescent analyzers. When not in use, the chopper motors of the infrared analyzers are turned off and the phototube high voltage supply to the chemiluminescent analyzers is placed in the standby position.]

(B) The manufacturer shall exercise care to prevent moisture from condensing in the sample collection bags.

(viii) The manufacturer need not comply with §86.142, since the records required therein are provided under other provisions of this subpart.

(ix) In addition to the requirements of subpart B of this part, the manufacturer shall prepare gasoline-fueled vehicles as follows prior to exhaust emission testing:

(A) The manufacturer shall inspect the fuel system to insure the absence