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not yielded passing results by the expiration of the overall test time fails the test.

(1) High-speed mode. (i) The mode timer starts (mt=0) when the vehicle engine speed is between 2200 and 2800 rpm. If the engine speed falls below 2200 rpm or exceeds 2800 rpm for more than two seconds in one excursion, or more than six seconds over all excursions within 30 seconds of the final measured value used in the pass/fail determination, the measured value is invalidated and the mode continued. If any excursion lasts for more than ten seconds, the high-speed mode length is 90 seconds elapsed time (mt=90).

(ii) The pass/fail analysis begins after an elapsed time of ten seconds (mt=10). A pass or fail determination is made for the vehicle and the mode is terminated in accordance with paragraphs (f)(1)(ii)(A) and (B) of this section.

(A) The vehicle passes the high-speed mode and the mode is terminated at an elapsed time of 90 seconds (mt=90) if any measured values are less than or equal to the applicable short test standards as described in §86.1438(d).

(B) The vehicle fails the high-speed mode and the test is terminated if the requirements of paragraphs (f)(2)(ii)(A) of this section are not satisfied by an elapsed time of 90 seconds (mt=90).

[58 FR 58426, Nov. 1, 1993; 59 FR 33913, 33914, July 1, 1994]

§§ 86.1440–86.1441  [Reserved]

§ 86.1442 Information required.

(a) General data. The information listed in paragraphs (a) (1) through (14) of this section must be recorded with respect to each CST. Elements of this general data may be located separately from the CST emission data, as long as the general data can easily be presented together with the CST emission data when a complete data set for the vehicle is desired.

(1) Test number.

(2) Vehicle description, including engine family code, vehicle ID number, version number, manufacturer, number of cylinders, equivalent test weight, weight class and odometer reading.

(3) Date and time of day for the test.

(4) Driver and equipment operator IDs.

(5) Gas analyzers: Analyzer bench ID, analyzer ranges, recordings of analyzer output during zero, span, and sample readings.

(6) Recorder charts or computer printouts: Test number, date, vehicle ID, operator ID, and identification of the measurements recorded.

(7) Soak area ambient temperature (°F).

(8) Test cell ambient temperature (°F), barometric pressure, and humidity. (A central laboratory barometer may be used, provided that individual test cell barometric pressures are shown to be within ±0.1 percent of the barometric pressure at the central barometer location.)

(9) Test fuel: RVP and type (Otto-cycle test fuel or Cold CO test fuel).

(10) Warmup operation performed, for example, none, full Urban Dynamometer Driving Schedule (UDDS), first 505 seconds of the UDDS, other confirmatory test procedure, other transient operation.
(11) Wait time characteristics, including total time and engine off-restart cycle schedule.

(12) Preconditioning; duration and type, for example, minimum 2500 rpm idle or minimum 30 mph (48 kph) loaded steady state operation.

(13) CST procedure type, as described in §86.1439.

(14) Dynamometer ID.

(b) CST emission data. For each CST, the information listed in paragraphs (b) (1) through (3) of this section must be recorded with respect to each sampling mode.

(1) The reported exhaust concentrations, i.e., those for which the product of \(\text{HC} \times \text{CO}^2\) is at a minimum. Round initial test results to the number of decimal places contained in the respective standards expressed to one additional significant figure; round final test results to the number of decimal places contained in the respective standards. Rounding is done in accordance with ASTM E 29-90. Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications. This procedure has been incorporated by reference (see §86.1).

(2) The test time and mode time at which the reported exhaust concentrations are at a minimum.

(3) Minimum CO+CO2 concentration (if applicable).

§ 86.1505 Introduction; structure of subpart.

(a) This subpart contains gaseous emission idle test procedures for light-duty trucks and heavy-duty engines for which idle CO standards apply. It applies to 1994 and later model years. The idle test procedures are optionally applicable to 1994 through 1996 model year natural gas-fueled and liquefied petroleum gas-fueled light-duty trucks and heavy-duty engines.

(b) References in this subpart to engine families and emission control systems shall be deemed to apply to durability groups and test groups as applicable for manufacturers certifying new light-duty trucks and Otto-cycle complete heavy-duty vehicles under the provisions of subpart S of this part.

[65 FR 59963, Oct. 6, 2000. Redesignated at 73 FR 37194, June 30, 2008]