

§ 85.2211

40 CFR Ch. I (7-1-12 Edition)

(7) For vehicles with multiple exhaust pipes, the separate results from each pipe for each mode (as specified in paragraphs (c) (5) and (6) of this section) must be numerically averaged for each pollutant, unless hardware which is capable of simultaneously sampling multiple exhaust pipes has been used.

(8) Exhaust concentration measurements from both the idle mode and the high speed mode are required.

[49 FR 24323, June 12, 1984, as amended at 58 FR 58402, Nov. 1, 1993]

§ 85.2211 Engine restart idle test—EPA 81.

(a)(1) *General calendar year applicability.* The test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through December 31, 1993, except as allowed in paragraph (a)(2) of this section.

(2) *Special calendar and model year applicability.* (i) The extended applicability described in paragraphs (a)(2) (ii) through (iv) of this section is restricted to 1995 and earlier model year vehicles or engines.

(ii) In a state for which the Administrator has approved a State Implementation Plan revision providing for the implementation of a basic decentralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in § 51.373 of this chapter, the test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through December 31, 1993.

(iii) In a state for which the Administrator has approved a State Implementation Plan revision providing for the implementation of a basic centralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in § 51.373 of this chapter, the test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through June 30, 1994.

(iv) In a state for which the Administrator has approved a State Implementation Plan revision providing for the implementation of an enhanced program meeting the requirements of part 51, subpart S of this chapter, according

to the schedule specified in § 51.373 of this chapter, the test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through December 31, 1995.

(b) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(c) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operation condition and adjusted as required in § 85.2217.

(2) Attach tachometer pick up.

(3) The engine shall be turned off and then restarted.

(4) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe.

(5) The engine speed shall be increased to 2500 rpm \pm 300 rpm, with transmission in neutral, for 30 seconds.

(6) The engine speed shall be reduced to free idle with transmission in neutral. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. However, if this type of hardware is not used, exhaust concentrations from each pipe shall be measured within the 30 second period if stable readings can be obtained from both pipes before the 30 seconds have elapsed. If this is not possible, the entire procedure beginning from step (3) shall be repeated for the second pipe. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which the exhaust pipes originate from a common point.

(7) Multiple readings from multiple exhaust pipes shall be numerically averaged, if taken.

[49 FR 24323, June 12, 1984, as amended at 58 FR 58402, Nov. 1, 1993]

§ 85.2212 Idle test—EPA 81.

(a)(1) *General calendar year applicability.* The test procedure described in this section may be used to establish

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Emissions Performance Warranty eligibility through December 31, 1993, except as allowed in paragraph (a)(2) of this section.

(2) *Special calendar and model year applicability.* (i) The extended applicability described in paragraphs (a)(2) (ii) through (iv) of this section is restricted to 1995 and earlier model year vehicles or engines.

(ii) In a state for which the Administrator has approved a State Implementation Plan revision providing for the implementation of a basic decentralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in §51.373 of this chapter, the test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through December 31, 1993.

(iii) In a state for which the Administrator has approved a State Implementation Plan revision providing for the implementation of a basic centralized program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in §51.373 of this chapter, the test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through June 30, 1994.

(iv) In a state for which the Administrator has approved a State Implementation Plan revision providing for the implementation of an enhanced program meeting the requirements of part 51, subpart S of this chapter, according to the schedule specified in §51.373 of this chapter, the test procedure described in this section may be used to establish Emissions Performance Warranty eligibility through December 31, 1995.

(b) *General requirements.* Vehicles shall be tested in as-received condition. Engines shall be at normal operating temperature and not overheating (as indicated by gauge, warning light or boiling radiator) with all accessories off.

(c) *Test sequence.* (1) Analyzers shall be warmed-up, in stabilized operating condition and adjusted as required in §85.2217.

(2) *Optional:* The engine may be preconditioned by operating it at 2500 ±300 rpm for up to 30 seconds.

(3) With engine idling and transmission in neutral, the sample probe shall be inserted into the tailpipe. Record exhaust concentrations after stabilized readings are obtained or at the end of 30 seconds, whichever occurs first. This process shall be repeated as necessary for multiple exhaust pipes, or hardware which is capable of simultaneously sampling vehicles with multiple tailpipes may be used. Neither multiple readings nor simultaneous sampling hardware is necessary for exhaust systems in which the exhaust pipes originate from a common point.

(4) Multiple readings from multiple exhaust pipes shall be numerically averaged, if taken.

[49 FR 24323, June 12, 1984, as amended at 58 FR 58403, Nov. 1, 1993]

§ 85.2213 Idle test—EPA 91.

(a) *General requirements—(1) Exhaust gas sampling algorithm.* The analysis of exhaust gas concentrations must begin ten seconds after the applicable test mode begins. Exhaust gas concentrations must be analyzed at a minimum rate of once every 0.75 second. The measured value for pass/fail determinations is a simple running average of the measurements taken over five seconds.

(2) *Pass/fail determination.* A pass or fail determination is made for each applicable test mode based on a comparison of the short test standards contained in §§85.2203 and 85.2204, and the measured value for HC and CO as described in paragraph (a)(1) of this section. A vehicle passes the test mode if any pair of simultaneous measured values for HC and CO are below or equal to the applicable short test standards. A vehicle fails the test mode if the values for either HC or CO, or both, in all simultaneous pairs of values are above the applicable standards.

(3) *Void test conditions.* The test immediately terminates and any exhaust gas measurements are voided if the measured concentration of CO plus CO₂ falls below six percent or the vehicle's engine stalls at any time during the test sequence.

(4) *Multiple exhaust pipes.* Exhaust gas concentrations from vehicle engines