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 mode timer resets to zero (mt=0) and timing resumes. 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)(i)(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)(i)(A) of this section are not satisfied by an elapsed time of 90 seconds (mt=90).

(2) **Idle mode.**

(i) The mode timer starts (mt=0) when the vehicle engine speed is between 350 and 1100 rpm. If the engine speed exceeds 1100 rpm or falls below 350 rpm, the mode timer resets to zero and resumes timing. The minimum idle mode length is determined in accordance with paragraphs (f)(2)(i)(A) of this section. The maximum idle 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)(2)(i)(A) and (B) of this section.

(A) The vehicle passes the idle mode and the test is immediately terminated if, at any point prior to an elapsed time of 90 seconds (mt=90), the measured values are less than or equal to the applicable short test standards as described in §86.1438(d)(4).

(B) The vehicle fails the idle mode and the test is terminated if the requirements of paragraphs (f)(2)(i)(A) of this section are not satisfied by an elapsed time of 90 seconds (mt=90).
§ 86.1501 Scope; applicability.

(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]

§ 86.1502 Definitions.

The definitions in §86.084–2 or §86.1803–01, as applicable, apply to this subpart.

[64 FR 23923, May 4, 1999. Redesignated at 73 FR 37194, June 30, 2008]

§ 86.1503 Abbreviations.

The abbreviations in §86.084–3 or in §86.1804–01, as applicable, apply to this subpart.

[64 FR 23923, May 4, 1999. Redesignated at 73 FR 37194, June 30, 2008]

§ 86.1505 Introduction; structure of subpart.

(a) This subpart describes the equipment and the procedures required to perform idle exhaust emission tests on heavy-duty engines and light-duty trucks. Subpart A of this part sets forth the testing requirements, reporting requirements and test intervals necessary to comply with EPA certification procedures.

(b) Four topics are addressed in this subpart. Sections 86.1505 through 86.1515 set forth specifications and equipment requirements; §§86.1516 through 86.1526 discuss calibration methods and frequency; test procedures and data requirements are listed.