

continue through as many automatic shutoffs as necessary to achieve this level. This completes the fueling procedure.

(j) Withdraw the nozzle from the vehicle and the bag, holding the tip of the nozzle upward to avoid any dripping into the bag.

(k) Within 1 minute after completion of the fueling event, the bag shall be folded to minimize the vapor volume inside the bag. The bag shall be folded as quickly as possible to prevent evaporation of collected emissions.

(l) Within 5 minutes after completion of the fueling event, the mass of the bag and its contents shall be measured and recorded (consistent with paragraph (c) of this section). The bag shall be weighed as quickly as possible to prevent evaporation of collected emissions.

[58 FR 16063, Mar. 24, 1993, as amended at 60 FR 43906, Aug. 23, 1995; 65 FR 59958, Oct. 6, 2000]

Subpart N—Emission Regulations for New Otto-Cycle and Diesel Heavy-Duty Engines; Gaseous and Particulate Exhaust Test Procedures

AUTHORITY: Secs. 202, 206, 207, 208, 301(a), Clean Air Act as amended 42 U.S.C. 7521, 7524, 7541, 7542, and 7601.

SOURCE: 48 FR 52210, Nov. 16, 1983, unless otherwise noted.

§ 86.1301–90 Scope; applicability.

This subpart contains gaseous emission test procedures for Otto-cycle and diesel heavy-duty engines, and particulate emission test procedures for diesel heavy-duty engines. It applies to 1990 and later model years.

[54 FR 14571, Apr. 11, 1989]

§ 86.1302–84 Definitions.

The definitions in § 86.084–2 apply to this subpart.

§ 86.1303–84 Abbreviations.

The abbreviations in § 86.084–3 apply to this subpart.

§ 86.1304–90 Section numbering; construction.

(a) *Section numbering.* The model year of initial applicability is indicated by the section number. The two digits following the hyphen designate the first model year for which a section is applicable. The section continues to apply to subsequent model years unless a later model year section is adopted.

Example: Section 86.13xx–2004 applies to the 2004 and subsequent model years. If a § 86.13xx–2007 is promulgated it would apply beginning with the 2007 model year; § 86.13xx–2004 would apply to model years 2004 through 2006.

(b) A section reference without a model year suffix refers to the section applicable for the appropriate model year.

[65 FR 59958, Oct. 6, 2000]

§ 86.1305–90 Introduction; structure of subpart.

(a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emission tests on Otto-cycle and diesel heavy-duty engines. Subpart A sets forth the testing requirements and test intervals necessary to comply with EPA certification procedures.

(b) Four topics are addressed in this subpart. Sections 86.1306 through 86.1315 set forth specifications and equipment requirements; §§ 86.1316 through 86.1326 discuss calibration methods and frequency; test procedures are listed in §§ 86.1327 through 86.1341; calculation formula are found in § 86.1342; and data requirements are found in § 86.1344.

[54 FR 14571, Apr. 11, 1989]

§ 86.1305–2004 Introduction; structure of subpart.

(a) This subpart describes the equipment required and the procedures to follow in order to perform exhaust emissions tests on Otto-cycle and diesel-cycle heavy duty engines. Subpart A of this part sets forth the emission standards and general testing requirements to comply with EPA certification procedures.

(b) This subpart contains five key sets of requirements, as follows: specifications and equipment needs

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(§§ 86.1306 through 86.1314); calibration methods and frequencies (§§ 86.1316 through 86.1326); test procedures (§§ 86.1327 through 86.1341 and §§ 86.1360 through 86.1380); calculation formulas (§§ 86.1342 and 86.1343); and data requirements (§ 86.1344).

[65 FR 59958, Oct. 6, 2000]

§ 86.1306-07 Equipment required and specifications; overview.

Section 86.1306-07 includes text that specifies requirements that differ from § 86.1306-96. Where a paragraph in § 86.1306-96 is identical and applicable to § 86.1306-07, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1306-96.”.

(a) and (b) [Reserved]. For guidance see § 86.1306-96.

(c)(1) Upon request, the Administrator may allow a manufacturer to use some of the test equipment allowed for model year 2006 and earlier engines instead of the test equipment required for model year 2007 and later engines, provided that good engineering judgment indicates that it would not adversely affect determination of compliance with the applicable emission standards of this part.

(2) A manufacturer may use the test equipment required for model year 2007 and later engines for earlier model year engines, provided that good engineering judgment indicates that it would not adversely affect determination of compliance with the applicable emission standards of this part.

(d) Approval of alternate test system.
(1) If on the basis of the information described in paragraph (d)(5) of this section, the Administrator determines that an alternate test system would consistently and reliably produce emission test results that are at least equivalent to the results produced using the test systems described in this subpart, he/she shall approve the alternate system for optional use instead of the test systems described in this subpart.

(2) Any person may submit an application for approval of an alternate test system.

(3) In approving an alternate test system, the Administrator may approve it

for general use, or may approve it conditionally.

(4) The Administrator may revoke the approval on the basis of new information that indicates that the alternate test system is not equivalent. However, revocation of approval must allow manufacturers sufficient lead-time to change the test system to an approved system. In determining the amount of lead-time that is required, the Administrator will consider relevant factors such as:

(i) The ease with which the test system can be converted to an approved system.

(ii) The degree to which the alternate system affects the measured emission rates.

(iii) Any relevant conditions included in the approval.

(5) The application for approval must include:

(i) *An explanation of the theoretical basis of the alternate system.* This technical description should explain why the detection principle of the alternate system would provide equivalent results to the detection principle of the prescribed system for the full range of emission properties being measured. This description may include equations, figures, and references. For example, a NO_x measurement application should theoretically relate the alternate detection principle to the chemiluminescent detection principle of detecting nitric oxide for a typical range of NO to NO₂ ratios. A PM measurement application should explain the principle(s) by which the alternate system quantifies PM mass independent of PM composition, and how it is impacted by semi-volatile and volatile species= phase distributions. For any proportioning or integrating system, the application should compare the alternate system's theoretical response to the prescribed system's response.

(ii) *A technical description of the alternate system.* This section shall detail all of the hardware and software included in the alternate system. Dimensioned drawings, flow-charts, schematics, and component specifications shall be included. Any data manipulation (*i.e.* calculations) that the system performs shall be presented in this section.