

## Environmental Protection Agency

## § 86.106-00

National Low Emission Vehicle Program, which opt-out has gone into effect under the provisions of §86.1707. All provisions of this subpart are applicable to vehicles certified pursuant to subpart R of this part, except as specifically noted in subpart R of this part.

(d) 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 vehicles, light-duty trucks, and heavy-duty vehicles under the provisions of subpart S of this part.

(e) References in this subpart to light-duty vehicles or light-duty trucks shall be deemed to apply to light-duty vehicles, light-duty trucks, or heavy-duty vehicles and engines as applicable for manufacturers certifying new light-duty vehicles, light-duty trucks, and heavy-duty vehicles and engines under the provisions of subpart S of this part.

[42 FR 32954, June 28, 1977, as amended at 59 FR 16295, Apr. 6, 1994; 59 FR 48504, Sept. 21, 1994; 61 FR 54890, Oct. 22, 1996; 62 FR 31234, June 6, 1997; 63 FR 965, Jan. 7, 1998; 64 FR 23921, May 4, 1999; 65 FR 59956, Oct. 6, 2000]

### § 86.102 Definitions.

The definitions in subpart A apply to this subpart.

[45 FR 14508, Mar. 5, 1980]

### § 86.103 Abbreviations.

The abbreviations in subpart A apply to this subpart.

[45 FR 14508, Mar. 5, 1980]

### § 86.104 Section numbering; construction.

(a) 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 effective. A section remains effective until superseded.

*Example* Section 86.111-78 applies to the 1978 and subsequent model years until superseded. If a §86.111-81 is promulgated it would take effect beginning with the 1981 model year; §86.111-78 would apply to model years 1978 through 1980.

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

(c) Unless indicated otherwise, all provisions in this subpart apply to petroleum-fueled, natural gas-fueled, liquefied petroleum gas-fueled and methanol-fueled vehicles.

[42 FR 32954, June 28, 1977. Redesignated at 45 FR 14508, Mar. 5, 1980, as amended at 54 FR 14499, Apr. 11, 1989; 59 FR 48504, Sept. 21, 1994]

### § 86.105 Introduction; structure of subpart.

(a) This subpart describes the equipment required and the procedures to follow in order to perform gaseous exhaust, particulate, and evaporative emission tests on light-duty vehicles and light-duty trucks. Subpart A of this part sets forth testing requirements and test intervals necessary to comply with EPA certification procedures. Not all emission measurement techniques described in this subpart will be necessary for all vehicles. Subpart A of this part defines the conditions under which vehicles may be exempted from measuring methane and/or waived from measuring particulate matter.

(b) Three topics are addressed in this subpart. Sections 86.106 through 86.115 set forth specifications and equipment requirements; §§86.116 through 86.126 discuss calibration methods and frequency; test procedures and data requirements are listed in §§86.127 through 86.157.

[56 FR 25760, June 5, 1991, as amended at 59 FR 16295, Apr. 6, 1994; 59 FR 48504, Sept. 21, 1994]

### § 86.106-00 Equipment required; overview.

Section 86.106-00 includes text that specifies requirements that differ from §86.106-96. Where a paragraph in §86.106-96 is identical and applicable to §86.106-00, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see §86.106-96.”

(a) introductory text through (a)(2) [Reserved]. For guidance see §86.106-96.

(a)(3) Fuel, analytical gas, and driving schedule specifications. Fuel specifications for exhaust and evaporative emissions testing and for mileage accumulation for petroleum-fueled and methanol-fueled vehicles are specified

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in § 86.113. Analytical gases are specified in § 86.114. The EPA Urban Dynamometer Driving Schedule (UDDS), US06, and SC03 driving schedules, for use in exhaust emission tests, and the New York City Cycle (NYCC), for use with the UDDS in running loss tests, are specified in §§ 86.115, 86.130, 86.159, 86.160, and appendix I to this part.

(b) [Reserved]

[61 FR 54890, Oct. 22, 1996]

### § 86.106–90 Equipment required; overview.

(a) This subpart contains procedures for exhaust emissions tests on petroleum-fueled, and methanol-fueled light-duty vehicles and light-duty trucks, and for evaporative emission tests on gasoline-fueled and methanol-fueled light-duty vehicles and light-duty trucks. Certain items of equipment are not necessary for a particular test, *e.g.*, evaporative enclosure when testing diesel vehicles. Alternate sampling systems may be used if shown to yield equivalent results, and if approved in advance by the Administrator. Equipment required and specifications are as follows:

(1) *Evaporative emission tests, gasoline-fueled and methanol-fueled vehicles.* The evaporative emission test is closely related to and connected with the exhaust emission test. All vehicles tested for evaporative emissions must be tested for exhaust emissions. Further, unless the evaporative emission test is waived by the Administrator under § 86.090–26, all gasoline-fueled and methanol-fueled vehicles must undergo both tests. (Diesel vehicles are excluded from the evaporative emission standard.) Section 86.107 specifies the necessary equipment.

(2) *Exhaust emission tests.* All vehicles subject to this subpart are tested for exhaust emissions. The exhaust from Otto-cycle vehicles is tested for gaseous emissions only, using the CVS concept (§ 86.109). The exhaust from diesel vehicles is tested for both gaseous and particulate emissions. Petroleum-fueled diesel vehicle testing also utilizes the CVS concept of measuring emissions, but requires that a PDP-CVS or CFV with heat exchanger be used, and that it be connected to a dilution tunnel in order to sample particulate emissions (§ 86.110). The exhaust from methanol-fueled diesel vehicles is tested for both gaseous and particulate emissions using the CVS concept (either PDP CVS or CFV as specified in § 86.109 or PDP-CVS or CFV with heat exchanger as specified in § 86.110 may be used) and is connected to a dilution tunnel to sample particulate emissions (§ 86.110) (This equipment may be used with methanol-fueled Otto-cycle vehicles, however, particulates are not measured). All gasoline-fueled and methanol-fueled vehicles are either tested for evaporative emissions or undergo a diurnal heat build. Petroleum-fueled diesel vehicles are excluded from this requirement. Equipment necessary and specifications appear in §§ 86.108 through 86.114.

(3) *Fuel, analytical gas, and driving schedule specifications.* Fuel specifications for exhaust and evaporative emissions testing and for mileage accumulation for petroleum-fueled and methanol-fueled vehicles are specified in § 86.113. Analytical gases are specified in § 86.114. The EPA Urban Dynamometer Driving Schedule (UDDS) for use in petroleum-fueled and methanol-fueled exhaust emissions tests is specified in § 86.115 and appendix I.

(b) [Reserved]

[54 FR 14499, Apr. 11, 1989]

### § 86.106–94 Equipment required; overview.

(a) This subpart contains procedures for exhaust emissions tests on petroleum-fueled, natural gas-fueled, liquefied petroleum gas-fueled and methanol-fueled light-duty vehicles and light-duty trucks, and for evaporative emission tests on gasoline-fueled, natural gas-fueled, liquefied petroleum gas-fueled and methanol-fueled light-duty vehicles and light-duty trucks. Certain items of equipment are not necessary for a particular test, *e.g.*, evaporative enclosure when testing petroleum-fueled diesel vehicles. Alternate sampling systems may be used if shown to yield equivalent results and if approved in advance by the Administrator. Equipment required and specifications are as follows: