

§ 600.101-86

§ 600.101-86 General applicability.

(a) The provisions of this subpart are applicable to 1986 and later model year gasoline-fueled and diesel automobiles.

[49 FR 13849, Apr. 6, 1984]

§ 600.101-93 General applicability.

The provisions of this subpart are applicable to 1993 and later model year gasoline-fueled, diesel-fueled, alcohol-fueled, natural gas-fueled, alcohol dual fuel, and natural gas dual fuel automobiles.

[59 FR 39652, Aug. 3, 1994]

§ 600.102-78 Definitions.

The definitions in § 600.002 apply to this subpart.

§ 600.103-78 Abbreviations.

The abbreviations in § 600.003 apply to this subpart.

§ 600.104-78 Section numbering, construction.

The section numbering system set forth in § 600.004 applies to this subpart.

§ 600.105-78 Recordkeeping.

The recordkeeping requirements set forth in § 600.005 apply to this subpart.

§ 600.106-78 Equipment requirements.

The requirements for test equipment to be used for all fuel economy testing are given in §§ 86.106, 86.107, 86.108, 86.109, and 86.111 of this chapter, as applicable.

§ 600.107-78 Fuel specifications.

(a) The test fuel specifications for gasoline-fueled automobiles are given in paragraph (a)(1) of § 86.113 of this chapter.

(b) The test fuel specifications for diesel automobiles are given in paragraphs (b) (1) and (2) of § 86.113 of this chapter.

§ 600.107-93 Fuel specifications.

(a) The test fuel specifications for gasoline-fueled automobiles are given in § 86.113(a) (1) and (2) of this chapter.

(b) The test fuel specifications for diesel-fueled automobiles are given in

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§ 86.113(b) (1) through (3) of this chapter.

(c) The test fuel specifications for methanol fuel used in Otto-cycle automobiles are given in § 86.113(a) (3) and (4) of this chapter.

(d) The test fuel specifications for methanol fuel used in diesel cycle automobiles are given in § 86.113(b) (4) through (6) of this chapter.

(e) The test fuel specifications for mixtures of petroleum and methanol fuels for methanol dual fuel vehicles are given in § 86.113(d) of this chapter.

(f) The specification range of the fuels to be used under paragraphs (c) and (d) of this section shall be reported in accordance with § 86.090-21(b)(3) of this chapter.

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§ 600.108-78 Analytical gases.

The analytical gases for all fuel economy testing must meet the criteria given in § 86.114 of this chapter.

§ 600.109-78 EPA driving cycles.

(a) The driving cycle to be utilized for generation of the city fuel economy data is prescribed in § 86.115 of this chapter.

(b) The driving cycle to be utilized for generation of the highway fuel economy data is specified in this paragraph.

(1) The Highway Fuel Economy Driving Schedule is set forth in appendix I to this part. The driving schedule is defined by a smooth trace drawn through the specified speed versus time relationships.

(2) The speed tolerance at any given time on the dynamometer driving schedule specified in appendix I, or as printed on a driver's aid chart approved by the Administrator, when conducted to meet the requirements of paragraph (b) of § 600.111 is defined by upper and lower limits. The upper limit is 2 mph higher than the highest point on trace within 1 second of the given time. The lower limit is 2 mph lower than the lowest point on the trace within 1 second of the given time. Speed variations greater than the tolerances (such as may occur during gear changes) are acceptable provided they occur for less than 2 seconds on any occasion. Speeds

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lower than those prescribed are acceptable provided the vehicle is operated at maximum available power during such occurrences.

(3) A graphic representation of the range of acceptable speed tolerances is found in paragraph (c) of §86.115 of this chapter.

§ 600.110-78 Equipment calibration.

The equipment used for fuel economy testing must be calibrated according to the provisions of §86.116 of this chapter.

§ 600.111-80 Test procedures.

(a) The test procedures to be followed for generation of the city fuel economy data are those prescribed in §§86.127-94 through 86.138-78 of this chapter, as applicable. (The evaporative and refueling loss portions of the test procedure may be omitted unless specifically required by the Administrator.)

(b) The test procedures to be followed for generation of the highway fuel economy data are those specified in §600.111-78 (b) through (h) inclusive.

(1) The Highway Fuel Economy Dynamometer Procedure consists of a preconditioning highway driving sequence and a measured highway driving sequence.

(2) The highway fuel economy test is designated to simulate non-metropolitan driving with an average speed of 48.6 mph and a maximum speed of 60 mph. The cycle is 10.2 miles long with 0.2 stops per mile and consists of warmed-up vehicle operation on a chassis dynamometer through a specified driving cycle. A proportional part of the diluted exhaust emissions is collected continuously for subsequent analysis using a constant volume (variable dilution) sampler. Diesel dilute exhaust is continuously analyzed for hydrocarbons using a heated sample line and analyzer.

(3) Except in cases of component malfunction or failure, all emission control systems installed on or incorporated in a new motor vehicle must be functioning during all procedures in this subpart. The Administrator may authorize maintenance to correct component malfunction or failure.

(c) *Transmission.* The provisions of §86.128 of this chapter apply for vehicle

transmission operation during highway fuel economy testing under this subpart.

(d) *Road load power and test weight determination.* Section 86.129 of this chapter applies for determination of road load power and test weight for highway fuel economy testing. The test weight for the testing of a certification vehicle will be that test weight specified by the Administrator under the provisions of part 86. The test weight for a fuel economy data vehicle will be that test weight specified by the Administrator from the test weights covered by that vehicle configuration. The Administrator will base his selection of a test weight on the relative projected sales volumes of the various test weights within the vehicle configuration.

(e) *Vehicle preconditioning.* The Highway Fuel Economy Dynamometer Procedure is designed to be performed immediately following the Federal Emission Test Procedure, §§86.127 through 86.138 of this chapter. When conditions allow, the tests should be scheduled in this sequence. In the event the tests cannot be scheduled within three hours of the Federal Emission Test Procedure (including one hour hot soak evaporation loss test, if applicable) the vehicle should be preconditioned as in paragraph (e)(1) or (2) of this section, as applicable.

(1) If the vehicle has experienced more than three hours of soak (68°F-86°F) since the completion of the Federal Emission Test Procedure, or has experienced periods of storage outdoors, or in environments where soak temperature is not controlled to 68°F-86°F, the vehicle must be preconditioned by operation on a dynamometer through one cycle of the EPA Urban Dynamometer Driving Schedule, §86.115 of this chapter.

(2) In unusual circumstances where additional preconditioning is desired by the manufacturer, the provisions of paragraph (a)(3) of §86.132 of this chapter apply.

(f) *Highway fuel economy dynamometer procedure.* (1) The dynamometer procedure consists of two cycles of the Highway Fuel Economy Driving Schedule (§600.109 (b)) separated by 15 seconds of idle. The first cycle of the Highway Fuel Economy Driving Schedule is