

§ 90.101

40 CFR Ch. I (7–1–21 Edition)

been incorporated by reference in this part.

(1) *ASTM material.* The following table sets forth material from the American Society for Testing and Materials which has been incorporated by reference. The first column lists the number and name of the material. The second column lists the section(s) of this part, other than §90.7, in which the matter is referenced. The second column is presented for information only and may not be all inclusive. Copies of these materials may be obtained from American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103.

Document number and name	40 CFR part 90 reference
ASTM D86–93: Standard Test Method for Distillation of Petroleum Products.	Appendix A to subpart D, Table 3.
ASTM D1319–89: Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption.	Appendix A to subpart D, Table 3.
ASTM D2622–92: Standard Test Method for Sulfur in Petroleum Products by X-ray Spectrometry.	Appendix A to subpart D, Table 3.
ASTM D2699–92: Standard Test Method for Knock Characteristics of Motor Fuels by the Research Method.	Appendix A to subpart D, Table 3.
ASTM D2700–92: Standard Test Method for Knock Characteristics of Motor and Aviation Fuels by the Motor Method.	Appendix A to subpart D, Table 3.
ASTM D3231–89: Standard Test Method for Phosphorus in Gasoline.	Appendix A to subpart D, Table 3.
ASTM D3606–92: Standard Test Method for Determination of Benzene and Toluene in Finished Motor and Aviation Gasoline by Gas Chromatography.	Appendix A to subpart D, Table 3.
ASTM D5191–93a: Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method).	Appendix A to subpart D, Table 3.
ASTM E29–93a: Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.	90.116; 90.509.

(2) *SAE material.* The following table sets forth material from the Society of Automotive Engineers which has been incorporated by reference. The first column lists the number and name of the material. The second column lists

the section(s) of this part, other than §90.7, in which the matter is referenced. The second column is presented for information only and may not be all inclusive. Copies of these materials may be obtained from Society of Automotive Engineers International, 400 Commonwealth Dr., Warrendale, PA 15096–0001.

Document number and name	40 CFR part 90 reference
SAE J1930 September 1991, Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations and Acronyms.	90.114
SAE Paper 770141, Optimization of a Flame Ionization Detector for Determination of Hydrocarbon in Diluted Automotive Exhausts, Glenn D. Reschke, 1977.	90.316

Subpart B—Emission Standards and Certification Provisions

§ 90.101 Applicability.

(a) The requirements of this subpart B are applicable to all nonroad engines and vehicles subject to the provisions of subpart A of this part.

(b) In a given model year, you may ask us to approve the use of procedures for certification, labeling, reporting and recordkeeping, or other administrative requirements specified in 40 CFR part 1054 or 1068 instead of the comparable procedures specified in this part 90. We may approve the request as long as it does not prevent us from ensuring that you fully comply with the intent of this part.

[73 FR 59179, Oct. 8, 2008]

§ 90.102 Definitions.

The definitions in subpart A of part 90 apply to this subpart. All terms not defined herein or in subpart A have the meaning given them in the Act. The following definitions also apply to this subpart.

Attitudinal control means the operator regulates either the horizontal or vertical position of the equipment, or both.

Carry means the operator completely bears the weight of the equipment, including the engine.

Support means that the operator holds the equipment in position so as to prevent it from falling, slipping or

Environmental Protection Agency

§ 90.103

sinking. It is not necessary for the entire weight of the equipment to be borne by the operator.

engines at or below 19 kilowatts (kW), shall not exceed the following levels. Throughout this part, NMHC + NO_x standards are applicable only to natural gas fueled engines at the option of the manufacturer, in lieu of HC + NO_x standards.

§ 90.103 Exhaust emission standards.

(a) Exhaust emissions for new Phase 1 and Phase 2 nonroad spark ignition

TABLE 1—PHASE 1 EXHAUST EMISSION STANDARDS
[Grams per kilowatt-hour]

Engine displacement class	Hydrocarbons + oxides of nitrogen (HC + NO _x)	Hydrocarbons	Carbon monoxide	Oxides of nitrogen (NO _x)
I	16.1	.....	519	.....
II	13.4	.....	519	.....
III .....	.....	295	805	5.36
IV .....	.....	241	805	5.36
V .....	.....	161	603	5.36

TABLE 2—PHASE 2 CLASS I-A, CLASS I-B, AND CLASS I ENGINE EXHAUST EMISSION STANDARDS
[grams per kilowatt-hour]

Engine class	HC + NO _x	NMHC + NO _x	CO	Effective date
I	16.1	14.8	610	August 1, 2007; in addition, any Class I engine family initially produced on or after August 1, 2003 must meet the Phase 2 Class I standards before they may be introduced into commerce.
I-A	50	.....	610	2001 Model Year.
I-B	40	37	610	2001 Model Year.

TABLE 3—PHASE 2 CLASS II ENGINE EXHAUST EMISSION STANDARDS BY MODEL YEAR
[grams per kilowatt-hour]

Engine Class	Emission requirement	Model Year				
		2001	2002	2003	2004	2005 and later
II	HC + NO _x	18.0	16.6	15.0	13.6	12.1
	NMHC + NO _x	16.7	15.3	14.0	12.7	11.3
	CO	610	610	610	610	610

TABLE 4—PHASE 2 HANDHELD EXHAUST EMISSION STANDARDS BY MODEL YEAR
[grams per kilowatt-hour]

Engine class	Emission requirement	Model year					
		2002	2003	2004	2005	2006	2007 and later
Class III	HC + NO _x	238	175	113	50	50	50
	CO	805	805	805	805	805	805
Class IV	HC + NO _x	196	148	99	50	50	50
	CO	805	805	805	805	805	805
Class V	HC + NO _x .....	.....	.....	143	119	96	72
	CO .....	.....	.....	603	603	603	603

(1) Each engine displacement class has a unique set of exhaust emission standards. Boundaries for each class are indicated in § 90.116(b).

(2) Emission standards for classes III, IV, V may be used only if an engine meets at least one of the following requirements: