

Environmental Protection Agency

§ 90.103

not be all inclusive. Copies of these materials may be obtained from Society of Automotive Engineers Inter-

national, 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.

The requirements of subpart B are applicable to all nonroad engines and vehicles subject to the provisions of subpart A of part 90.

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

§ 90.103 Exhaust emission standards.

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

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.