

State of California
AIR RESOURCES BOARD

CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES
FOR 1995-~~2004 AND LATER~~ SMALL OFF-ROAD ENGINES

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NOTE: This document is printed in a style to indicate changes from the existing provisions.

All existing language in Part I-VI is indicated by plain type. All proposed additions to language in parts I-VI are indicated by underlined text. All proposed deletions to language are indicated by ~~strikeout~~. Only those portions containing the suggested modifications from the existing language are included. All other portions remain unchanged and are indicated by the symbol “* * * * *” for reference.

The numbering convention employed in this document, in order of priority, is:
I.1.a.1.i.A.

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CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES
FOR 1995-~~2004~~ AND LATER
SMALL OFF-ROAD ENGINES

Part I. Emission Regulations for 1995-~~2004~~ and Later New Small Off-Road Engines,
General Provisions.

1. General Applicability.

(a) Parts I-V of these provisions apply to spark-ignition small off-road engines produced on or after January 1, 1995 and through the 2004 model year, and any equipment that uses such engines produced on or after January 1, 1995. Despite the use of the term “spark-ignition engine”, Parts I-V of these provisions apply to compression-ignition small off-road engines produced on or after January 1, 1995 and prior to the 2000 model year, and any equipment that uses such engines produced on or after January 1, 1995 and prior to the 2000 model year. These provisions do not apply to all engines and equipment that fall within the scope of the preemption of Section 209(e)(1)(A) of the Federal Clean Air Act, as amended, and as defined by regulation of the Environmental Protection Agency.

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9. Exhaust Emission Standards For 1995-~~2004~~ and Later Small Off-Road Engines.

(a) This section applies to small off-road engines produced on or after January 1, 1995 and through the 2004 model year.

(b) Exhaust emissions from small off-road engines manufactured for sale, sold, offered for sale, introduced, delivered or imported into California for introduction into commerce, must not exceed:

Exhaust Emission Standards
grams per brake horsepower-hour
[grams per kilowatt-hour]

Calendar Year	Engine Class ⁽¹⁾	Hydrocarbon plus Oxides of Nitrogen ⁽²⁾	Hydrocarbon ⁽²⁾	Carbon Monoxide	Oxides of Nitrogen	Particulate
1995	I	12.0	—	300	—	0.9 ⁽³⁾
	II	10.0	—	300	—	0.9 ⁽³⁾
	III ⁽⁴⁾	—	220	600	4.0	—
	IV ⁽⁴⁾	—	180	600	4.0	—
	V ⁽⁴⁾	—	120	300	4.0	—
1996 to 1999	I	12.0 ⁽⁵⁾	—	350	—	0.9 ⁽³⁾
	II	10.0 ⁽⁵⁾	—	350	—	0.9 ⁽³⁾
	III ⁽⁴⁾	—	220 ⁽⁵⁾	600	4.0 ⁽⁵⁾	—
	IV ⁽⁴⁾	—	180 ⁽⁵⁾	600	4.0 ⁽⁵⁾	—
	V ⁽⁴⁾	—	120 ⁽⁵⁾	300	4.0 ⁽⁵⁾	—

Exhaust Emission Standards for Spark-Ignition Engines
grams per brake horsepower-hour
[grams per kilowatt-hour]

Model Year	Engine Class ⁽⁴⁾	Durability Periods (hours)	Hydrocarbon plus Oxides of Nitrogen ⁽²⁾	Carbon Monoxide	Particulate
2000-2001 ⁽⁵⁾	SI 0-65 cc, inclusive	50/125/300	54 [72]	400 [536]	1.5 ⁽⁴⁾ [2.0]
	SI >65 cc - <225 cc	NA	12.0 [16.1]	350 [467]	
	SI ≥225 cc	NA	10.0 [13.4]	350 [467]	
2002-2005 ⁽⁵⁾	SI 0-65 cc, inclusive	50/125/300	54 [72]	400 [536]	1.5 ⁽⁴⁾ [2.0]
	SI >65 cc - <225 cc Horizontal	125/250/500	12.0 [16.1]	410 [549]	
	SI >65 cc - <225 cc Vertical	NA	12.0 [16.1]	350 [467]	
	SI ≥225 cc	125/250/500	9.0 [12.0]	410 [549]	
2006 and subsequent ⁽⁵⁾	SI 0-65 cc, inclusive	50/125/300	54 [72]	400 [536]	1.5 ⁽⁴⁾ [2.0]
	SI >65 cc - <225 cc	125/250/500	12.0 [16.1]	410 [549]	
	SI ≥225 cc	125/250/500	9.0 [12]	410 [549]	

- (1) "Class I" means small off-road engines greater than 65 cc to less than 225 cc in displacement.
"Class II" means small off-road engines greater than or equal to 225 cc in displacement.
"Class III" means small off-road engines less than 20 cc in displacement.
"Class IV" means small off-road engines 20 cc to less than 50 cc in displacement.
"Class V" means small off-road engines greater than or equal to 50 cc to 65 cc in displacement.
- (2) The Executive Officer may allow gaseous-fueled (i.e., propane, natural gas) engine families, that satisfy the requirements of the regulations, to certify to either the hydrocarbon plus oxides of nitrogen or hydrocarbon emission standard, as applicable, on the basis of the non-methane hydrocarbon (NMHC) portion of the total hydrocarbon emissions.
- (3) Applicable to all diesel-cycle engines.
- (4) Applicable to all two-stroke engines.
- (5) Engines used exclusively in snowthrowers and ice augers need not certify to or comply with the HC and NOx standards or the crankcase requirements at the option of the manufacturer.

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