

40 C.F.R. § 1042.101

Exhaust emission standards for Category 1 and Category 2 engines.

(a) *Duty-cycle standards.* Exhaust emissions from your engines may not exceed emission standards, as follows:

(1) Measure emissions using the test procedures described in subpart F of this part.

(2) The following CO emission standards in this paragraph (a)(2) apply starting with the applicable model year identified in § 1042.1:

(i) 8.0 g/kW-hr for engines below 8 kW.

(ii) 6.6 g/kW-hr for engines at or above 8 kW and below 19 kW.

(iii) 5.5 g/kW-hr for engines at or above 19 kW and below 37 kW.

(iv) 5.0 g/kW-hr for engines at or above 37 kW.

(3) Except as described in paragraphs (a)(4) and (5) of this section, the Tier 3 standards for PM and NO_x+HC emissions are described in the following tables:

Table 1 to § 1042.101—Tier 3 Standards for Category 1 Engines Below 3700 kW ^a

Power density and application	Displacement (L/cyl)	Maximum engine power	Model year	PM (g/kW-hr)	NO _x +HC (g/kW-hr) ^b
All	disp. < 0.9	kW < 19	2009+	0.40	7.5
		19 ≤ kW < 75	2009-2013	0.30	7.5
			2014+	0.30 ^c	4.7 ^c
Commercial engines with kW/L ≤ 35	disp. < 0.9	kW ≥ 75	2012+	0.14	5.4
		all	2013+	0.12	5.4
		kW < 600	2014-2017	0.11	5.6
			2018+	0.10	5.6

		kW ≥ 600	2014+	0.11	5.6
	2.5 ≤ disp. < 3.5	kW < 600	2013-2017	0.11	5.6
			2018+	0.10	5.6
		kW ≥ 600	2013+	0.11	5.6
	3.5 ≤ disp. < 7.0	kW < 600	2012-2017	0.11	5.8
			2018+	0.10	5.8
		kW ≥ 600	2012+	0.11	5.8
Commercial engines with kW/L > 35, and all recreational engines ≥ 75 kW	disp. < 0.9	kW ≥ 75	2012+	0.15	5.8
	0.9 ≤ disp. < 1.2	all	2013+	0.14	5.8
	1.2 ≤ disp. < 2.5		2014+	0.12	5.8
	2.5 ≤ disp. < 3.5		2013+	0.12	5.8
	3.5 ≤ disp. < 7.0		2012+	0.11	5.8

^a No Tier 3 standards apply for commercial Category 1 engines at or above 3700 kW. See § 1042.1(c) and paragraph (a)(7) of this section for the standards that apply for these engines.

^b The applicable NO_x+HC standards specified for Tier 2 engines in Appendix I of this part continue to apply instead of the values noted in the table for commercial engines at or above 2000 kW. FELs for these engines may not be higher than the Tier 1 NO_x standard specified in Appendix I of this part.

^c See paragraph (a)(4) of this section for alternative PM and NO_x+HC standards for engines at or above 19 kW and below 75 kW with displacement below 0.9 L/cyl.

Table 2 to § 1042.101— Tier 3 Standards for Category 2 Engines Below 3700 kW ^a

Displacement (L/cyl)	Maximum engine power	Model year	PM (g/kW-hr)	NO _x +HC (g/kW-hr)
7.0 ≤ disp. < 15.0	kW < 2000	2013+	0.14	6.2
	2000 ≤ kW ≤ 3700	2013+	0.14	7.8 ^b

15.0 ≤ disp. < 20.0c	kW < 2000	2014+	0.34	7.0
20.0 ≤ disp. < 25.0c	kW < 2000	2014+	0.27	9.8
25.0 ≤ disp. < 30.0c	kW < 2000	2014+	0.27	11.0

^a The Tier 3 standards in this table do not apply for Category 2 engines at or above 2000 kW with per-cylinder displacement at or above 15.0 liters, or for any Category 2 engines at or above 3700 kW. See § 1042.1(c) and paragraphs (a)(6) through (8) of this section for the standards that apply for these engines.

^b For engines subject to the 7.8 g/kW-hr NO_x+HC standard, FELs may not be higher than the Tier 1 NO_x standards specified in Appendix I of this part.

^c There are no Tier 3 standards for Category 2 engines with per-cylinder displacement at or above 15 and 20 liters with maximum engine power at or above 2000 kW. See paragraphs (a)(6) and (7) of this section for the Tier 4 standards that apply for these engines starting with the 2014 model year.

(4) For Tier 3 engines at or above 19 kW and below 75 kW with displacement below 0.9 L/cyl, you may alternatively certify some or all of your engine families to a PM emission standard of 0.20 g/kW-hr and a NO_x+HC emission standard of 5.8 g/kW-hr for 2014 and later model years.

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