

§ 34.30

14 CFR Ch. I (1–1–19 Edition)

§ 45.13 of this chapter. No exemptions to the requirements of paragraph (a)(2) of this section will be granted after December 31, 2016.

(4) For Class TSS Engines manufactured on and after July 18, 2012:

GASEOUS EMISSION STANDARDS FOR SUPERSONIC ENGINES

Class	Rated output rO ¹ (kN)	NO _x (g/kN)	CO (g/kN)
TSS	All	36 + 2.42 (rPR)	4,550 (rPR) ^{-1.03}

¹ rO is the rated output with afterburning applied.

(b) Gaseous exhaust emissions from each new aircraft gas turbine engine shall not exceed:

dividual production model was manufactured after December 31, 2013 (Tier 8):

(1) For Classes TF, T3 and T8 engines of a type or model of which the first in-

TIER 8 OXIDES OF NITROGEN EMISSION STANDARDS FOR SUBSONIC ENGINES

Class	Rated pressure ratio— rPR	Rated output rO (kN)	NO _x (g/kN)
TF, T3, T8	rPR ≤ 30	26.7 < rO ≤ 89.0	40.052 + 1.5681 (rPR) - 0.3615 (rO) - (0.0018 (rPR) (rO)).
		rO > 89.0	7.88 + 1.4080 (rPR).
	30 < rPR < 104.7	26.7 < rO ≤ 89.0	41.9435 + 1.505 (rPR) - 0.5823 (rO) + (0.005562 (rPR) (rO)).
		rO > 89.0	- 9.88 + 2.0 (rPR).
	rPR ≥ 104.7	rO ≥ 26.7	32 + 1.6 (rPR).

(c) Engines (including engines that are determined to be derivative engines for the purposes of emission certification) type certificated with characteristic levels at or below the NO_x standards of § 34.21(d)(1)(vi) of this part (as applicable based on rated output and rated pressure ratio) and introduced before July 18, 2012, may be produced through December 31, 2012, without meeting the NO_x standard of paragraph (a)(2) of this section.

[Doc. No. 34–5, 77 FR 76851, Dec. 31, 2012, as amended by Amdt. 34–5A, 78 FR 63017, Oct. 23, 2013; 78 FR 65554, Nov. 1, 2013]

Subpart D—Exhaust Emissions (In-use Aircraft Gas Turbine Engines)

§ 34.30 Applicability.

The provisions of this subpart are applicable to all in-use aircraft gas turbine engines certificated for operation within the United States of the classes specified, beginning on the dates specified in § 34.31.

§ 34.31 Standards for exhaust emissions.

(a) Exhaust emissions of smoke from each in-use aircraft gas turbine engine of Class T8, beginning February 1, 1974, shall not exceed a smoke number (SN) of 30.

(b) Exhaust emissions of smoke from each in-use aircraft gas turbine engine of Class TF and of rated output of 129 kN (29,000 lb) thrust or greater, beginning January 1, 1976, shall not exceed $SN = 83.6(rO)^{-0.274}$ (rO is in kN).

(c) The standards set forth in paragraphs (a) and (b) of this section refer to exhaust smoke emission emitted during operation of the engine as specified in the applicable sections of subpart G of this part, and measured and calculated in accordance with the procedures set forth in subpart G.

[Doc. No. FAA–2012–1333, 77 FR 76852, Dec. 31, 2012]