

§ 34.2

Aviation Administration, including reheat contribution where applicable, but excluding any contribution due to water injection, expressed in kilowatts or kilonewtons (as applicable), rounded to at least three significant figures.

Rated pressure ratio (rPR) means the ratio between the combustor inlet pressure and the engine inlet pressure achieved by an engine operation at rated output, rounded to at least three significant figures.

Reference day conditions means the reference ambient conditions to which the gaseous emissions (HC and smoke) are to be corrected. The reference day conditions are as follows: Temperature=15 °C, specific humidity=0.00629 kg H₂O/kg of dry air, and pressure=101325 Pa.

Sample system means the system which provides for the transportation of the gaseous emission sample from the sample probe to the inlet of the instrumentation system.

Shaft power means only the measured shaft power output of a turboprop engine.

Smoke means the matter in exhaust emissions which obscures the transmission of light.

Smoke number (SN) means the dimensionless term quantifying smoke emissions.

Standard day conditions means standard ambient conditions as described in the United States Standard Atmosphere 1976, (i.e., temperature=15 °C, specific humidity=0.00 kg H₂O/kg dry air, and pressure=101325 Pa.)

Taxi/idle (in) means those aircraft operations involving taxi and idle between the time of landing roll-out and final shutdown of all propulsion engines.

Taxi/idle (out) means those aircraft operations involving taxi and idle between the time of initial starting of the propulsion engine(s) used for the taxi and the turn onto the duty runway.

Tier, as used in this part, is a designation related to the NO_x emission standard for the engine as specified in § 34.21 or § 34.23 of this part (e.g., Tier 0).

[Doc. No. 25613, 55 FR 32861, Aug. 10, 1990; 55 FR 37287, Sept. 10, 1990, as amended by Amdt. 34-3, 64 FR 5558, Feb. 3, 1999; Amdt. 34-5, 77 FR 76849, Dec. 31, 2012]

14 CFR Ch. I (1-1-13 Edition)

§ 34.2 Abbreviations.

The abbreviations used in this part have the following meanings in both upper and lower case:

CO₂ Carbon dioxide
CO Carbon monoxide
EPA United States Environmental Protection Agency
FAA Federal Aviation Administration, United States Department of Transportation
g Gram(s)
HC Hydrocarbon(s)
HP Horsepower
hr Hour(s)
H₂O water
kg Kilogram(s)
kJ Kilojoule(s)
kN Kilonewton(s)
kW Kilowatt(s)
lb Pound(s)
LTO Landing and takeoff
min Minute(s)
NO_x Oxides of nitrogen
Pa Pascal(s)
rO Rated output
rPR Rated pressure ratio
sec Second(s)
SP Shaft power
SN Smoke number
T Temperature, degrees Kelvin
TIM Time in mode
°C Degrees Celsius
% Percent

[Doc. No. 25613, 55 FR 32861, Aug. 10, 1990, as amended by Amdt. 34-3, 64 FR 5559, Feb. 3, 1999; Amdt. 34-5, 77 FR 76850, Dec. 31, 2012]

§ 34.3 General requirements.

(a) This part provides for the approval or acceptance by the Administrator or the Administrator of the EPA of testing and sampling methods, analytical techniques, and related equipment not identical to those specified in this part. Before either approves or accepts any such alternate, equivalent, or otherwise nonidentical procedures or equipment, the Administrator or the Administrator of the EPA shall consult with the other in determining whether or not the action requires rulemaking under sections 231 and 232 of the Clean Air Act, as amended, consistent with the responsibilities of the Administrator of the EPA and the Secretary of Transportation under sections 231 and 232 of the Clean Air Act.

(b) Under section 232 of the Act, the Secretary of Transportation issues regulations to ensure compliance with 40 CFR part 87. This authority has been delegated to the Administrator of the FAA (49 CFR 1.47).

(c) *U.S. airplanes.* This part applies to civil airplanes that are powered by aircraft gas turbine engines of the classes specified herein and that have U.S. standard airworthiness certificates.

(d) *Foreign airplanes.* Pursuant to the definition of "aircraft" in 40 CFR 87.1, this regulation applies to civil airplanes that are powered by aircraft gas turbine engines of the classes specified herein and that have foreign airworthiness certificates that are equivalent to U.S. standard airworthiness certificates. This regulation applies only to those foreign civil airplanes that, if registered in the United States, would be required by applicable regulations to have a U.S. standard airworthiness certificate in order to conduct the operations intended for the airplane. Pursuant to 40 CFR 87.3(c), this regulation does not apply where it would be inconsistent with an obligation assumed by the United States to a foreign country in a treaty, convention, or agreement.

(e) Reference in this regulation to 40 CFR part 87 refers to title 40 of the Code of Federal Regulations, chapter I—Environmental Protection Agency, part 87, Control of Air Pollution from Aircraft and Aircraft Engines (40 CFR part 87).

(f) This part contains regulations to ensure compliance with certain standards contained in 40 CFR part 87. If EPA takes any action, including the issuance of an exemption or issuance of a revised or alternate procedure, test method, or other regulation, the effect of which is to relax or delay the effective date of any provision of 40 CFR part 87 that is made applicable to an aircraft under this FAR, the Administrator of FAA will grant a general administrative waiver of its more stringent requirements until this FAR is amended to reflect the more relaxed requirements prescribed by EPA.

(g) Unless otherwise stated, all terminology and abbreviations in this FAR that are defined in 40 CFR part 87 have the meaning specified in that part, and all terms in 40 CFR part 87

that are not defined in that part but that are used in this FAR have the meaning given them in the Clean Air Act, as amended by Public Law 91-604.

(h) All interpretations of 40 CFR part 87 that are rendered by the EPA also apply to this FAR.

(i) If the EPA, under 40 CFR 87.3(a), approves or accepts any testing and sampling procedures or methods, analytical techniques, or related equipment not identical to those specified in that part, this FAR requires an applicant to show that such alternate, equivalent, or otherwise nonidentical procedures have been complied with, and that such alternate equipment was used to show compliance, unless the applicant elects to comply with those procedures, methods, techniques, and equipment specified in 40 CFR part 87.

(j) If the EPA, under 40 CFR 87.5, prescribes special test procedures for any aircraft or aircraft engine that is not susceptible to satisfactory testing by the procedures in 40 CFR part 87, the applicant must show the Administrator that those special test procedures have been complied with.

(k) Wherever 40 CFR part 87 requires agreement, acceptance, or approval by the Administrator of the EPA, this FAR requires a showing that such agreement or approval has been obtained.

(l) Pursuant to 42 U.S.C. 7573, no state or political subdivision thereof may adopt or attempt to enforce any standard respecting emissions of any air pollutant from any aircraft or engine thereof unless that standard is identical to a standard made applicable to the aircraft by the terms of this FAR.

(m) If EPA, by regulation or exemption, relaxes a provision of 40 CFR part 87 that is implemented in this FAR, no state or political subdivision thereof may adopt or attempt to enforce the terms of this FAR that are superseded by the relaxed requirement.

(n) If any provision of this FAR is rendered inapplicable to a foreign aircraft as provided in 40 CFR 87.3(c) (international agreements), and §34.3(d) of this FAR, that provision may not be adopted or enforced against that foreign aircraft by a state or political subdivision thereof.

§ 34.4

(o) For exhaust emissions requirements of this FAR that apply beginning February 1, 1974, January 1, 1976, January 1, 1978, January 1, 1984, and August 9, 1985, continued compliance with those requirements is shown for engines for which the type design has been shown to meet those requirements, if the engine is maintained in accordance with applicable maintenance requirements for 14 CFR chapter I. All methods of demonstrating compliance and all model designations previously found acceptable to the Administrator shall be deemed to continue to be an acceptable demonstration of compliance with the specific standards for which they were approved.

(p) Each applicant must allow the Administrator to make, or witness, any test necessary to determine compliance with the applicable provisions of this FAR.

[Doc. No. 25613, 55 FR 32861, Aug. 10, 1990; 55 FR 37287, Sept. 10, 1990; Amdt. 34-5, 77 FR 76850, Dec. 31, 2012]

§ 34.4 [Reserved]

§ 34.5 Special test procedures.

The Administrator or the Administrator of the EPA may, upon written application by a manufacturer or operator of aircraft or aircraft engines, approve test procedures for any aircraft or aircraft engine that is not susceptible to satisfactory testing by the procedures set forth herein. Prior to taking action on any such application, the Administrator or the Administrator of the EPA shall consult with the other.

§ 34.6 Aircraft safety.

(a) The provisions of this part will be revised if at any time the Administrator determines that an emission standard cannot be met within the specified time without creating a safety hazard.

(b) Consistent with 40 CFR 87.6, if the FAA Administrator determines that any emission control regulation in this part cannot be safely applied to an aircraft, that provision may not be adopted or enforced against that aircraft by any state or political subdivision thereof.

14 CFR Ch. I (1-1-13 Edition)

§ 34.7 Exemptions.

Notwithstanding part 11 of the Federal Aviation Regulations (14 CFR part 11), all petitions for rulemaking involving either the substance of an emission standard or test procedure prescribed by the EPA that is incorporated in this FAR, or the compliance date for such standard or procedure, must be submitted to the EPA. Information copies of such petitions are invited by the FAA. Petitions for rulemaking or exemption involving provisions of this FAR that do not affect the substance or the compliance date of an emission standard or test procedure that is prescribed by the EPA, and petitions for exemptions under the provisions for which the EPA has specifically granted exemption authority to the Secretary of Transportation are subject to part 11 of the Federal Aviation Regulations (14 CFR part 11). Petitions for rulemaking or exemptions involving these FARs must be submitted to the FAA.

(a) *Exemptions based on flights for short durations at infrequent intervals.* The emission standards of this part do not apply to engines which power aircraft operated in the United States for short durations at infrequent intervals. Such operations are limited to:

(1) Flights of an aircraft for the purpose of export to a foreign country, including any flights essential to demonstrate the integrity of an aircraft prior to a flight to a point outside the United States.

(2) Flights to a base where repairs, alterations or maintenance are to be performed, or to a point of storage, or for the purpose of returning an aircraft to service.

(3) Official visits by representatives of foreign governments.

(4) Other flights the Administrator determines, after consultation with the Administrator of the EPA, to be for short durations at infrequent intervals. A request for such a determination shall be made before the flight takes place.

(b) *Exemptions for very low production engine models.* The emissions standards of this part do not apply to engines of very low production after the date of applicability. For the purpose of this part, "very low production" is limited to a maximum total production for