§ 87.2 Acronyms and abbreviations.

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

The otherwise applicable requirements. Engines excepted with respect to certain standards must comply with other standards from which they are not excepted.

Exempt means to allow (through a formal case-by-case process) engines to be produced and sold that do not meet (or do not fully meet) otherwise applicable standards. Exempted engines must conform to regulatory conditions specified for an exemption in this part and other applicable regulations. Exempted engines are deemed to be “subject to” the standards of this part even though they are not required to comply with the otherwise applicable requirements. Engines exempted with respect to certain standards must comply with other standards as a condition of the exemption.

Exhaust emissions means substances emitted to the atmosphere from exhaust discharge nozzles, as measured by the test procedures specified in subpart G of this part.

FAA means the U.S. Department of Transportation, Federal Aviation Administration.

Fuel venting emissions means raw fuel, exclusive of hydrocarbons in the exhaust emissions, discharged from aircraft gas turbine engines during all normal ground and flight operations.

Good engineering judgment involves making decisions consistent with generally accepted scientific and engineering principles and all relevant information, subject to the provisions of 40 CFR 1068.5.


In-use aircraft gas turbine engine means an aircraft gas turbine engine which is in service.

Military aircraft means aircraft owned by, operated by, or produced for sale to the armed forces or other agency of the federal government responsible for national security (including but not limited to the Department of Defense) and other aircraft considered to be military aircraft under international law and conventions.

New means relating to an aircraft or aircraft engine that has never been placed into service.

Operator means any person or company that owns or operates an aircraft.

Production cutoff date or date of the production cutoff means the date on which interim phase-out allowances end.

Rated output (rO) means the maximum power/thrust available for takeoff at standard day conditions as approved for the engine by FAA, including reheat contribution where applicable, but excluding any contribution due to water injection, expressed in kilowatts or kilonewtons (as applicable) and 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 operating at rated output, rounded to at least three significant figures.

Round has the meaning given in 40 CFR 1065.1001.

Smoke means the matter in exhaust emissions that obscures the transmission of light, as measured by the test procedures specified in subpart G of this part.

Smoke number means a dimensionless value quantifying smoke emissions calculated in accordance with ICAO Annex 16.

Spare engine means an engine installed (or intended to be installed) on an in-service aircraft to replace an existing engine and that is excepted as described in §87.50(c).

Standard day conditions means the following ambient conditions: temperature = 15 °C, specific humidity = 0.00634 kg H₂O/kg dry air, and pressure = 101.325 kPa.

Subsonic means relating to aircraft that are certificated to fly faster than the speed of sound.

Tier 0 means relating to an engine that is subject to the Tier 0 NOₓ standards specified in §87.21.

Tier 1 means relating to an engine that is subject to the Tier 1 NOₓ standards specified in §87.21.

Tier 2 means relating to an engine that is subject to the Tier 2 NOₓ standards specified in §87.21.

Tier 3 means relating to an engine that is subject to the Tier 3 NOₓ standards specified in §87.21.

Tier 4 means relating to an engine that is subject to the Tier 4 NOₓ standards specified in §87.21.

Tier 5 means relating to an engine that is subject to the Tier 5 NOₓ standards specified in §87.21.

Tier 6 means relating to an engine that is subject to the Tier 6 NOₓ standards specified in §87.23.

Tier 7 means relating to an engine that is subject to the Tier 7 NOₓ standards specified in §87.23.

Tier 8 means relating to an engine that is subject to the Tier 8 NOₓ standards specified in §87.23.

Turbofan engine means an engine designed to create its propulsion from exhaust gases and from air that bypasses the combustion process and is accelerated in a ducted space between the inner (core) engine case and the outer engine fan casing.

Turbojet engine means a gas turbine engine that is designed to create all of its propulsion from exhaust gases.

Turboprop engine means a gas turbine engine that is designed to create most of its propulsion from a propeller driven by a turbine, usually through a gearbox.

Turboshaft engine means a gas turbine engine that is designed to drive a rotor transmission system or a gas turbine engine not used for propulsion.

U.S.-registered aircraft means an aircraft that is on the U.S. Registry.

We (us, our) means the Administrator of the Environmental Protection Agency and any authorized representatives.
§ 87.5 Special test procedures.

The Administrator or the Secretary 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