

## SUBCHAPTER C—AIR PROGRAMS (CONTINUED)

### PART 87—CONTROL OF AIR POLLUTION FROM AIRCRAFT AND AIRCRAFT ENGINES

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#### Subpart A—General Provisions

##### § 87.1 Definitions.

(a) As used in this part, all terms not defined herein shall have the meaning given them in the Act:

*Act* means the Clean Air Act, as amended (42 U.S.C. 7401 *et seq.*).

*Administrator* means the Administrator of the Environmental Protection Agency and any other officer or employee of the Environmental Protection Agency to whom authority involved may be delegated.

*Aircraft* means any airplane for which a U.S. standard airworthiness certificate or equivalent foreign airworthiness certificate is issued.

*Aircraft engine* means a propulsion engine which is installed in or which is manufactured for installation in an aircraft.

*Aircraft gas turbine engine* means a turboprop, turbofan, or turbojet aircraft engine.

*Class TP* means all aircraft turboprop engines.

*Class TF* means all turbofan or turbojet aircraft engines or aircraft engines designed for applications that otherwise would have been fulfilled by turbojet and turbofan engines except engines of class T3, T8, and TSS.

*Class T3* means all aircraft gas turbine engines of the JT3D model family.

*Class T8* means all aircraft gas turbine engines of the JT8D model family.

*Class TSS* means all aircraft gas turbine engines employed for propulsion of aircraft designed to operate at supersonic flight speeds.

*Commercial aircraft engine* means any aircraft engine used or intended for use by an “air carrier,” (including those engaged in “intrastate air transportation”) or a “commercial operator” (including those engaged in “intrastate air transportation”) as these terms are defined in the Federal Aviation Act and the Federal Aviation Regulations.

*Commercial aircraft gas turbine engine* means a turboprop, turbofan, or turbojet commercial aircraft engine.

*Emission measurement system* means all of the equipment necessary to transport and measure the level of emissions. This includes the sample system and the instrumentation system.

*Engine Model* means all commercial aircraft turbine engines which are of the same general series, displacement, and design characteristics and are usually approved under the same type certificate.

*Exhaust emissions* means substances emitted to the atmosphere from the exhaust discharge nozzle of an aircraft or aircraft engine.

*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.

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

*New aircraft turbine engine* means an aircraft gas turbine engine which has never been in service.

*Power setting* means the power or thrust output of an engine in terms of kilonewtons thrust for turbojet and turbofan engines and shaft power in terms of kilowatts for turboprop engines.

*Rated output (rO)* means the maximum power/thrust available for takeoff at standard day conditions as approved for the engine by the Federal Aviation Administration, including reheat contribution where applicable, but excluding any contribution due to water injection.

*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.

*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.

*Secretary* means the Secretary of Transportation and any other officer or employee of the Department of Transportation to whom the authority involved may be delegated.

*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/ H<sub>2</sub> O/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 turn on to duty runway.

[47 FR 58470, Dec. 30, 1982, as amended at 49 FR 31875, Aug. 9, 1984; 62 FR 25365, May 8, 1997]

#### § 87.2 Abbreviations.

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

CO Carbon Monoxide  
 FAA Federal Aviation Administration, Department of Transportation  
 HC Hydrocarbon(s)  
 hr. Hour(s)  
 LTO Landing takeoff  
 min. Minute(s)  
 NO<sub>x</sub> Oxides of nitrogen  
 rO Rated output  
 rPR Rated pressure ratio  
 sec. Seconds  
 SP Shaft power  
 SN Smoke number  
 T Temperature, degrees Kelvin  
 TIM Time in mode  
 W Watt(s)  
 ° Degree  
 % Percent

[47 FR 58470, Dec. 30, 1982, as amended at 49 FR 31875, Aug. 9, 1984; 62 FR 25365, May 8, 1997]

#### § 87.3 General requirements.

(a) This part provides for the approval or acceptance by the Administrator or the Secretary of testing and