TABLE B4—CERTIFICATION STANDARD ATMOSPHERIC HAIL SIZE DISTRIBUTION—Continued

<table>
<thead>
<tr>
<th>Hail diameter (mm)</th>
<th>Contribution total HWC (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Median diameter of hail is 16 mm

NOTE: Source of data—Results of the Aerospace Industries Association (AIA Propulsion Committee (PC) Study, Project PC 338–1, June 1990.

[Doc. No. 28652, 63 FR 14799, Mar. 26, 1998]

PART 34—FUEL VENTING AND EXHAUST EMISSION REQUIREMENTS FOR TURBINE ENGINE POWERED AIRPLANES

Subpart A—General Provisions

Sec.
34.1 Definitions.
34.2 Abbreviations.
34.3 General requirements.
34.4 [Reserved]
34.5 Special test procedures.
34.6 Aircraft safety.
34.7 Exemptions.
34.9 Exceptions.

Subpart B—Engine Fuel Venting Emissions (New and In-Use Aircraft Gas Turbine Engines)

34.10 Applicability.
34.11 Standard for fuel venting emissions.

Subpart C—Exhaust Emissions (New Aircraft Gas Turbine Engines)

34.20 Applicability.
34.21 Standards for exhaust emissions.
34.23 Exhaust Emission Standards for Engines Manufactured on and after July 19, 2012.

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

34.30 Applicability.
34.31 Standards for exhaust emissions.

Subpart E—Certification Provisions

34.48 Derivative engines for emissions certification purposes.

Subpart F [Reserved]

Subpart G—Test Procedures for Engine Exhaust Gaseous Emissions (Aircraft and Aircraft Gas Turbine Engines)

34.60 Introduction.
34.61-34.71 [Reserved]
§ 34.1

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 “intra-state air transportation”) or a “commercial operator” (including those engaged in “intra-state air transportation”) as these terms are defined in Title 49 of the United States Code and Title 14 of the Code of Federal Regulations.

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

Date of manufacture of an engine is the date the inspection acceptance records reflect that the engine is complete and meets the FAA approved type design.

Derivative engine for emissions certification purposes means an engine that has the same or similar emissions characteristics as an engine covered by a U.S. type certificate issued under 14 CFR part 33. These characteristics are specified in §34.48.

Emission measurement system means all of the equipment necessary to transport the emission sample 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 approved under the same type certificate.

Excepted, as used in §34.9, means an engine that may be produced and sold that does not meet otherwise applicable standards. Excepted engines must conform to regulatory conditions specified for an exception in §34.9. Excepted engines are subject to the standards of this part even though they are not required to comply with the otherwise applicable requirements. Engines excepted with respect to certain standards must comply with other standards from which they are not specifically excepted.

Exempt means an engine that does not meet certain applicable standards but may be produced and sold under the terms allowed by a grant of exemption issued pursuant to §34.7 of this part and part 11 of this chapter. Exempted engines must conform to regulatory conditions specified in the exemption as well as other applicable regulations. Exempted engines are 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 into 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.

Introduction date means the date of manufacture of the first individual production engine of a given engine model or engine type certificate family to be certificated. Neither test engines nor engines not placed into service affect this date.

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 or 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, DOT
§ 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)
NOx 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
%

§ 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.