Federal Aviation Regulation

Sec. 33.68

Part 33 AIRWORTHINESS STANDARDS: AIRCRAFT ENGINES	
Subpart E--Design and Construction; Turbine Aircraft Engines	

Sec. 33.68

Induction system icing.

Each engine, with all icing protection systems operating, must--
(a) Operate throughout its flight power range (including idling) without the accumulation of ice on the engine components that adversely affects engine operation or that causes a serious loss of power or thrust in continuous maximum and intermittent maximum icing conditions as defined in Appendix C of Part 25 of this chapter; and
[(b) Idle for 30 minutes on the ground, with the available air bleed for icing protection at its critical condition, without adverse effect, in an atmosphere that is at a temperature between 15^{o} and 30^{o}F (between -9^{o} and -1^{o}C) and has a liquid water content not less than 0.3 grams per cubic meter in the form of drops having a mean effective diameter not less than 20 microns, followed by a momentary operation at takeoff power or thrust. During the 30 minutes of idle operation the engine may be run up periodically to a moderate power or thrust setting in a manner acceptable to the Administrator.**]**

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