

during takeoff with the ATTCS system functioning.

I25.4 Thrust Setting.

The initial takeoff thrust or power setting on each engine at the beginning of the takeoff roll may not be less than any of the following:

- (a) Ninety (90) percent of the thrust or power set by the ATTCS (the maximum takeoff thrust or power approved for the airplane under existing ambient conditions);
- (b) That required to permit normal operation of all safety-related systems and equipment dependent upon engine thrust or power lever position; or
- (c) That shown to be free of hazardous engine response characteristics when thrust or power is advanced from the initial takeoff thrust or power to the maximum approved takeoff thrust or power.

I25.5 Powerplant Controls.

(a) In addition to the requirements of §25.1141, no single failure or malfunction, or probable combination thereof, of the ATTCS, including associated systems, may cause the failure of any powerplant function necessary for safety.

(b) The ATTCS must be designed to:

- (1) Apply thrust or power on the operating engine(s), following any one engine failure during takeoff, to achieve the maximum approved takeoff thrust or power without exceeding engine operating limits;
- (2) Permit manual decrease or increase in thrust or power up to the maximum takeoff thrust or power approved for the airplane under existing conditions through the use of the power lever. For airplanes equipped with limiters that automatically prevent engine operating limits from being exceeded under existing ambient conditions, other means may be used to increase the thrust or power in the event of an ATTCS failure provided the means is located on or forward of the power levers; is easily identified and operated under all operating conditions by a single action of either pilot with the hand that is normally used to actuate the power levers; and meets the requirements of §25.777 (a), (b), and (c);
- (3) Provide a means to verify to the flightcrew before takeoff that the ATTCS is in a condition to operate; and
- (4) Provide a means for the flightcrew to deactivate the automatic function. This means must be designed to prevent inadvertent deactivation.

I25.6 Powerplant Instruments.

In addition to the requirements of §25.1305:

- (a) A means must be provided to indicate when the ATTCS is in the armed or ready condition; and
- (b) If the inherent flight characteristics of the airplane do not provide adequate warning that an engine has failed, a warning sys-

tem that is independent of the ATTCS must be provided to give the pilot a clear warning of any engine failure during takeoff.

[Amdt. 25–62, 52 FR 43156, Nov. 9, 1987]

APPENDIX J TO PART 25—EMERGENCY EVACUATION

The following test criteria and procedures must be used for showing compliance with §25.803:

(a) The emergency evacuation must be conducted with exterior ambient light levels of no greater than 0.3 foot-candles prior to the activation of the airplane emergency lighting system. The source(s) of the initial exterior ambient light level may remain active or illuminated during the actual demonstration. There must, however, be no increase in the exterior ambient light level except for that due to activation of the airplane emergency lighting system.

(b) The airplane must be in a normal attitude with landing gear extended.

(c) Unless the airplane is equipped with an off-wing descent means, stands or ramps may be used for descent from the wing to the ground. Safety equipment such as mats or inverted life rafts may be placed on the floor or ground to protect participants. No other equipment that is not part of the emergency evacuation equipment of the airplane may be used to aid the participants in reaching the ground.

(d) Except as provided in paragraph (a) of this appendix, only the airplane's emergency lighting system may provide illumination.

(e) All emergency equipment required for the planned operation of the airplane must be installed.

(f) Each internal door or curtain must be in the takeoff configuration.

(g) Each crewmember must be seated in the normally assigned seat for takeoff and must remain in the seat until receiving the signal for commencement of the demonstration. Each crewmember must be a person having knowledge of the operation of exits and emergency equipment and, if compliance with §121.291 is also being demonstrated, each flight attendant must be a member of a regularly scheduled line crew.

(h) A representative passenger load of persons in normal health must be used as follows:

- (1) At least 40 percent of the passenger load must be female.
- (2) At least 35 percent of the passenger load must be over 50 years of age.
- (3) At least 15 percent of the passenger load must be female and over 50 years of age.
- (4) Three life-size dolls, not included as part of the total passenger load, must be carried by passengers to simulate live infants 2 years old or younger.