

# Code of Federal Regulations

**This Section of CFR is No Longer Current.**

## Sec. 25.803

Part 25 AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES	
Subpart D--Design and Construction	Emergency Provisions

## Sec. 25.803

Emergency evacuation.

(a) Each crew and passenger area must have emergency means to allow rapid evacuation in crash landings, with the landing gear extended and retracted, considering the possibility of the airplane being on fire.

(b) Passenger ventral and tail cone exits and any floor level door or exit in the side of the fuselage (other than those leading into a cargo or baggage compartment that is not accessible from the passenger cabin) that is 44 or more inches high and 20 or more inches wide, but not wider than 46 inches, must meet the applicable emergency exit requirements of this section and sections 25.807 through 25.813.

[(c) Except as provided in paragraph (d) of this section, for airplanes having a seating capacity or more than 44 passengers, it must be shown by actual demonstration that the maximum seating capacity, including the number of crewmembers required by the operating rules for which certification is requested, can be evacuated from the airplane to the ground within 90 seconds. The demonstration must be conducted under the following conditions:

(1) It must be conducted either during the dark of the night or during daylight with the dark of the night simulated. If the demonstration is conducted indoors during daylight hours it must be conducted with each window covered and each door closed to minimize the daylight effect. Illumination on the floor or ground may be used, but it must be kept low and shielded against shining into the airplane's windows or doors.

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

(3) Stands or ramps may be used for descent from the wing to the ground, and 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 airplane's emergency evacuation equipment may be used to aid the participants in reaching the ground.

(4) Except as provided in paragraph (c)(1) of this section, only the airplane's emergency lighting system may provide illumination.

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

(6) Each external door and exit, and each internal door or curtain, must be in the takeoff configuration.

(7) Each crewmember must be seated in the normally assigned seat for takeoff and must remain in that seat until receiving the signal for commencement of the demonstration.

Each crewmember must be--

- (i) For compliance with this section or Sec. 121.291 of this chapter, a member of a regularly scheduled line crew, or
  - (ii) For compliance with this section, a person having knowledge of the operation of exits and emergency equipment.
- (8) A representative passenger load of persons in normal health must be used as follows:
- (i) At least 30 percent must be females.
  - (ii) At least 5 percent must be over 60 years of age with a proportionate number of females.
  - (iii) At least 5 percent but not more than 10 percent, must be children under 12 years of age, prorated through that age group.
  - (iv) 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.
  - (v) Crewmembers, mechanics, and training personnel, who maintain or operate the airplane in the normal course of their duties, may not be used as passengers.
- (9) No passenger may be assigned a specific seat except as the Administrator may require. Except as required by paragraph (c)(12) of this section, no employee of the applicant may be seated next to an emergency exit.
- (10) Seat belts and shoulder harnesses (as required) must be fastened.
- (11) Before the start of the demonstration approximately one-half of the total average amount of carry-on baggage, blankets, pillows, and other similar articles must be distributed at several locations in the aisles and emergency exits access ways to create minor obstructions.
- (12) Each crewmember must be seated in his normally assigned seat for takeoff and must remain in that seat until receiving the signal for commencement of the demonstration.
- (13) No prior indication may be given to any crewmember or passenger of the particular exits to be used in the demonstration.
- (14) The applicant may not practice, rehearse, or describe the demonstration for the participants nor may any participant have taken part in this type of demonstration within the preceding 6 months.
- (15) The pretakeoff passenger briefing required by Sec. 121.571 of this chapter may be given. The passengers may also be advised to follow directions of crewmembers, but not be instructed on the procedures to be followed in the demonstration.
- (16) If safety equipment as allowed by paragraph (c)(3) of this section is provided, either all passenger and cockpit windows must be blacked out or all of the emergency exits must have safety equipment in order to prevent disclosure of the available emergency exits.
- (17) Not more than 50 percent of the emergency exits in the sides of the fuselage of an airplane that meet all of the requirements applicable to the required emergency exits for that airplane may be used for the demonstration. Exits that are not to be used in the demonstration must have the exit handle deactivated or must be indicated by red lights, red tape, or other acceptable means, placed outside the exits to indicate fire or other reason why they are unusable. The exits to be used must be representative of all the emergency exits on the airplane and must be designated by the applicant, subject to approval by the Administrator. At least one floor level exit must be used.
- (18) All evacuees, except those using an over-the-wing exit, must have the airplane by a

means provided as part of the airplane's equipment.

(19) The applicant's approved procedures must be fully utilized during the demonstration.

(20) The evacuation time period is completed when the last occupant has evacuated the airplane and is on the ground. Provided that the acceptance rate of the stand or ramp is no greater than the acceptance rate of the means available on the airplane for descent from the wing during an actual crash situation, evacuees using stands or ramps allowed by paragraph (c)(3) of this section are considered to be on the ground when they are on the stand or ramp.

(d) A combination of analysis and tests may be used to show that the airplane is capable of being evacuated within 90 seconds under the conditions specified in Sec. 25.803(c) of this section if the Administrator finds that the combination of analysis and tests will provide data with respect to the emergency evacuation capability of the airplane equivalent to that which would be obtained by actual demonstration.]

(e) An escape route must be established from each overwing emergency exit, and (except for flap surfaces suitable as slides) covered with a slip resistant surface. Except where a means for channeling the flow of evacuees is provided--

(1) The escape route must be at least 42 inches wide at Type A passenger emergency exits and must be at least two feet wide at all other passenger emergency exits, and

(2) The escape route surface must have a reflectance of at least 80 percent, and must be defined by markings with a surface-to-marking contrast ratio of at least 5:1.

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