

§ 23.851

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(2) Tests of the pressurization system to show proper functioning under each possible condition of pressure, temperature, and moisture, up to the maximum altitude for which certification is requested.

(3) Flight tests, to show the performance of the pressure supply, pressure and flow regulators, indicators, and warning signals, in steady and stepped climbs and descents at rates corresponding to the maximum attainable within the operating limitations of the airplane, up to the maximum altitude for which certification is requested.

(4) Tests of each door and emergency exit, to show that they operate properly after being subjected to the flight tests prescribed in paragraph (b)(3) of this section.

FIRE PROTECTION

§ 23.851 Fire extinguishers.

(a) There must be at least one hand fire extinguisher for use in the pilot compartment that is located within easy access of the pilot while seated.

(b) There must be at least one hand fire extinguisher located conveniently in the passenger compartment—

(1) Of each airplane accommodating more than 6 passengers; and

(2) Of each commuter category airplane.

(c) For hand fire extinguishers, the following apply:

(1) The type and quantity of each extinguishing agent used must be appropriate to the kinds of fire likely to occur where that agent is to be used.

(2) Each extinguisher for use in a personnel compartment must be designed to minimize the hazard of toxic gas concentrations.

[Doc. No. 26269, 58 FR 42165, Aug. 6, 1993]

§ 23.853 Passenger and crew compartment interiors.

For each compartment to be used by the crew or passengers:

(a) The materials must be at least flame-resistant;

(b) [Reserved]

(c) If smoking is to be prohibited, there must be a placard so stating, and if smoking is to be allowed—

(1) There must be an adequate number of self-contained, removable ashtrays; and

(2) Where the crew compartment is separated from the passenger compartment, there must be at least one illuminated sign (using either letters or symbols) notifying all passengers when smoking is prohibited. Signs which notify when smoking is prohibited must—

(i) When illuminated, be legible to each passenger seated in the passenger cabin under all probable lighting conditions; and

(ii) Be so constructed that the crew can turn the illumination on and off; and

(d) In addition, for commuter category airplanes the following requirements apply:

(1) Each disposal receptacle for towels, paper, or waste must be fully enclosed and constructed of at least fire resistant materials and must contain fires likely to occur in it under normal use. The ability of the disposal receptacle to contain those fires under all probable conditions of wear, misalignment, and ventilation expected in service must be demonstrated by test. A placard containing the legible words “No Cigarette Disposal” must be located on or near each disposal receptacle door.

(2) Lavatories must have “No Smoking” or “No Smoking in Lavatory” placards located conspicuously on each side of the entry door and self-contained, removable ashtrays located conspicuously on or near the entry side of each lavatory door, except that one ashtray may serve more than one lavatory door if it can be seen from the cabin side of each lavatory door served. The placards must have red letters at least 1/2 inch high on a white background at least 1 inch high (a “No Smoking” symbol may be included on the placard).

(3) Materials (including finishes or decorative surfaces applied to the materials) used in each compartment occupied by the crew or passengers must meet the following test criteria as applicable:

(i) Interior ceiling panels, interior wall panels, partitions, galley structure, large cabinet walls, structural flooring, and materials used in the construction of stowage compartments

(other than underseat stowage compartments and compartments for stowing small items such as magazines and maps) must be self-extinguishing when tested vertically in accordance with the applicable portions of appendix F of this part or by other equivalent methods. The average burn length may not exceed 6 inches and the average flame time after removal of the flame source may not exceed 15 seconds. Drippings from the test specimen may not continue to flame for more than an average of 3 seconds after falling.

(ii) Floor covering, textiles (including draperies and upholstery), seat cushions, padding, decorative and non-decorative coated fabrics, leather, trays and galley furnishings, electrical conduit, thermal and acoustical insulation and insulation covering, air ducting, joint and edge covering, cargo compartment liners, insulation blankets, cargo covers and transparencies, molded and thermoformed parts, air ducting joints, and trim strips (decorative and chafing), that are constructed of materials not covered in paragraph (d)(3)(iv) of this section must be self-extinguishing when tested vertically in accordance with the applicable portions of appendix F of this part or other approved equivalent methods. The average burn length may not exceed 8 inches and the average flame time after removal of the flame source may not exceed 15 seconds. Drippings from the test specimen may not continue to flame for more than an average of 5 seconds after falling.

(iii) Motion picture film must be safety film meeting the Standard Specifications for Safety Photographic Film PH1.25 (available from the American National Standards Institute, 1430 Broadway, New York, N.Y. 10018) or an FAA approved equivalent. If the film travels through ducts, the ducts must meet the requirements of paragraph (d)(3)(ii) of this section.

(iv) Acrylic windows and signs, parts constructed in whole or in part of elastomeric materials, edge-lighted instrument assemblies consisting of two or more instruments in a common housing, seatbelts, shoulder harnesses, and cargo and baggage tiedown equipment, including containers, bins, pallets, etc., used in passenger or crew compart-

ments, may not have an average burn rate greater than 2.5 inches per minute when tested horizontally in accordance with the applicable portions of appendix F of this part or by other approved equivalent methods.

(v) Except for electrical wire cable insulation, and for small parts (such as knobs, handles, rollers, fasteners, clips, grommets, rub strips, pulleys, and small electrical parts) that the Administrator finds would not contribute significantly to the propagation of a fire, materials in items not specified in paragraphs (d)(3)(i), (ii), (iii), or (iv) of this section may not have a burn rate greater than 4.0 inches per minute when tested horizontally in accordance with the applicable portions of appendix F of this part or by other approved equivalent methods.

(e) Lines, tanks, or equipment containing fuel, oil, or other flammable fluids may not be installed in such compartments unless adequately shielded, isolated, or otherwise protected so that any breakage or failure of such an item would not create a hazard.

(f) Airplane materials located on the cabin side of the firewall must be self-extinguishing or be located at such a distance from the firewall, or otherwise protected, so that ignition will not occur if the firewall is subjected to a flame temperature of not less than 2,000 degrees F for 15 minutes. For self-extinguishing materials (except electrical wire and cable insulation and small parts that the Administrator finds would not contribute significantly to the propagation of a fire), a vertical self-extinguishing test must be conducted in accordance with appendix F of this part or an equivalent method approved by the Administrator. The average burn length of the material may not exceed 6 inches and the average flame time after removal of the flame source may not exceed 15 seconds. Drippings from the material test specimen may not continue to flame for more than an average of 3 seconds after falling.

[Amdt. 23-14, 23 FR 31822, Nov. 19, 1973, as amended by Amdt. 23-23, 43 FR 50593, Oct. 30, 1978; Amdt. 23-25, 45 FR 7755, Feb. 4, 1980; Amdt. 23-34, 52 FR 1831, Jan. 15, 1987]