

(f) No person may operate a transport category airplane that was type certificated after January 1, 1958, or a nontransport category airplane manufactured after March 20, 1997, unless it is equipped at each flight deck station with a combined safety belt and shoulder harness that meets the applicable requirements specified in §25.785 of this chapter, effective March 6, 1980, except that—

(1) Shoulder harnesses and combined safety belt and shoulder harnesses that were approved and installed before March 6, 1980, may continue to be used; and

(2) Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the airplane.

(g) Each flight attendant must have a seat for takeoff and landing in the passenger compartment that meets the requirements of §25.785 of this chapter, effective March 6, 1980, except that—

(1) Combined safety belt and shoulder harnesses that were approved and installed before March, 6, 1980, may continue to be used; and

(2) Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the airplane.

(3) The requirements of §25.785(h) do not apply to passenger seats occupied by flight attendants not required by §121.391.

(h) Each occupant of a seat equipped with a shoulder harness or with a combined safety belt and shoulder harness must have the shoulder harness or combined safety belt and shoulder harness properly secured about that occupant during takeoff and landing, except that a shoulder harness that is not combined with a safety belt may be unfastened if the occupant cannot perform the required duties with the shoulder harness fastened.

(i) At each unoccupied seat, the safety belt and shoulder harness, if installed, must be secured so as not to interfere with crewmembers in the performance of their duties or with the rapid egress of occupants in an emergency.

(j) After October 27, 2009, no person may operate a transport category airplane type certificated after January 1, 1958 and manufactured on or after October 27, 2009 in passenger-carrying operations under this part unless all passenger and flight attendant seats on the airplane meet the requirements of §25.562 in effect on or after June 16, 1988.

[Doc No. 7522, 32 FR 13267, Sept. 20, 1967; as amended by Amdt. 121-41, 33 FR 9067, June 20, 1968; Amdt. 121-75, 36 FR 12512, July 1, 1971; Amdt. 121-133, 42 FR 18394, Apr. 7, 1977; Amdt. 121-155, 45 FR 7756, Feb. 4, 1980; Amdt. 121-170, 46 FR 15482, Mar. 5, 1981; Amdt. 121-177, 47 FR 10516, Mar. 11, 1982; Amdt. 121-230, 57 FR 42673, Sept. 15, 1992; Amdt. 121-251, 60 FR 65930, Dec. 20, 1995; Amdt. 121-255, 61 FR 28421, June 4, 1996; Amdt. 121-314, 70 FR 50907, Aug. 26, 2005; Amdt. 121-315, 70 FR 56559, Sept. 27, 2005; Amdt. 121-326, 71 FR 40009, July 14, 2006]

§ 121.312 Materials for compartment interiors.

(a) *All interior materials; transport category airplanes and nontransport category airplanes type certificated before January 1, 1965.* Except for the materials covered by paragraph (b) of this section, all materials in each compartment of a transport category airplane, or a nontransport category airplane type certificated before January 1, 1965, used by the crewmembers and passengers, must meet the requirements of §25.853 of this chapter in effect as follows, or later amendment thereto:

(1) *Airplane with passenger seating capacity of 20 or more—*(i) *Manufactured after August 19, 1988, but prior to August 20, 1990.* Except as provided in paragraph (a)(3)(ii) of this section, each airplane with a passenger capacity of 20 or more and manufactured after August 19, 1988, but prior to August 20, 1990, must comply with the heat release rate testing provisions of §25.853(d) in effect March 6, 1995 (formerly §25.853(a-1) in effect on August 20, 1986) (see App. L of this part), except that the total heat release over the first 2 minutes of sample exposure must not exceed 100 kilowatt minutes per square meter and the peak heat release rate must not exceed 100 kilowatts per square meter.

(ii) *Manufactured after August 19, 1990.* Each airplane with a passenger capacity of 20 or more and manufactured

after August 19, 1990, must comply with the heat release rate and smoke testing provisions of § 25.853(d) in effect March 6, 1995 (formerly § 25.853(a–1)(see app. L of this part) in effect on September 26, 1988).

(2) *Substantially complete replacement of the cabin interior on or after May 1, 1972*—(i) *Airplane for which the application for type certificate was filed prior to May 1, 1972.* Except as provided in paragraph (a)(3)(i) or (a)(3)(ii) of this section, each airplane for which the application for type certificate was filed prior to May 1, 1972, must comply with the provisions of § 25.853 in effect on April 30, 1972, regardless of passenger capacity, if there is a substantially complete replacement of the cabin interior after April 30, 1972.

(ii) *Airplane for which the application for type certificate was filed on or after May 1, 1972.* Except as provided in paragraph (a)(3)(i) or (a)(3)(ii) of this section, each airplane for which the application for type certificate was filed on or after May 1, 1972, must comply with the material requirements under which the airplane was type certificated, regardless of passenger capacity, if there is a substantially complete replacement of the cabin interior on or after that date.

(3) *Airplane type certificated after January 1, 1958, with passenger capacity of 20 or more*—(i) *Substantially complete replacement of the cabin interior on or after March 6, 1995.* Except as provided in paragraph (a)(3)(ii) of this section, each airplane that was type certificated after January 1, 1958, and has a passenger capacity of 20 or more, must comply with the heat release rate testing provisions of § 25.853(d) in effect March 6, 1995 (formerly § 25.853(a–1) in effect on August 20, 1986)(see app. L of this part), if there is a substantially complete replacement of the cabin interior components identified in § 25.853(d), on or after that date, except that the total heat release over the first 2 minutes of sample exposure shall not exceed 100 kilowatt-minutes per square meter and the peak heat release rate must not exceed 100 kilowatts per square meter.

(ii) *Substantially complete replacement of the cabin interior on or after August 20, 1990.* Each airplane that was type cer-

tificated after January 1, 1958, and has a passenger capacity of 20 or more, must comply with the heat release rate and smoke testing provisions of § 25.853(d) in effect March 6, 1995 (formerly § 25.853(a–1) in effect on September 26, 1988)(see app. L of this part), if there is a substantially complete replacement of the cabin interior components identified in § 25.853(d), on or after August 20, 1990.

(4) Contrary provisions of this section notwithstanding, the Manager of the Transport Airplane Directorate, Aircraft Certification Service, Federal Aviation Administration, may authorize deviation from the requirements of paragraph (a)(1)(i), (a)(1)(ii), (a)(3)(i), or (a)(3)(ii) of this section for specific components of the cabin interior that do not meet applicable flammability and smoke emission requirements, if the determination is made that special circumstances exist that make compliance impractical. Such grants of deviation will be limited to those airplanes manufactured within 1 year after the applicable date specified in this section and those airplanes in which the interior is replaced within 1 year of that date. A request for such grant of deviation must include a thorough and accurate analysis of each component subject to § 25.853(a–1), the steps being taken to achieve compliance, and, for the few components for which timely compliance will not be achieved, credible reasons for such noncompliance.

(5) Contrary provisions of this section notwithstanding, galley carts and galley standard containers that do not meet the flammability and smoke emission requirements of § 25.853(d) in effect March 6, 1995 (formerly § 25.853(a–1)) (see app. L of this part) may be used in airplanes that must meet the requirements of paragraphs (a)(1)(i), (a)(1)(ii), (a)(3)(i), or (a)(3)(ii) of this section, provided the galley carts or standard containers were manufactured prior to March 6, 1995.

(b) *Seat cushions.* Seat cushions, except those on flight crewmember seats, in each compartment occupied by crew or passengers, must comply with the requirements pertaining to seat cushions in § 25.853(c) effective on November 26, 1984, on each airplane as follows:

(1) Each transport category airplane type certificated after January 1, 1958; and

(2) On or after December 20, 2010, each nontransport category airplane type certificated after December 31, 1964.

(c) *All interior materials; airplanes type certificated in accordance with SFAR No. 41 of 14 CFR part 21.* No person may operate an airplane that conforms to an amended or supplemental type certificate issued in accordance with SFAR No. 41 of 14 CFR part 21 for a maximum certificated takeoff weight in excess of 12,500 pounds unless the airplane meets the compartment interior requirements set forth in §25.853(a) in effect March 6, 1995 (formerly §25.853(a), (b), (b-1), (b-2), and (b-3) of this chapter in effect on September 26, 1978)(see app. L of this part).

(d) *All interior materials; other airplanes.* For each material or seat cushion to which a requirement in paragraphs (a), (b), or (c) of this section does not apply, the material and seat cushion in each compartment used by the crewmembers and passengers must meet the applicable requirement under which the airplane was type certificated.

(e) Thermal/acoustic insulation materials. For transport category airplanes type certificated after January 1, 1958:

(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation is installed in the fuselage as replacements after September 2, 2005, the insulation must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003, if it is:

- (i) Of a blanket construction or
- (ii) Installed around air ducting.

(2) For airplanes manufactured after September 2, 2005, thermal/acoustic insulation materials installed in the fuselage must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003.

(3) For airplanes with a passenger capacity of 20 or greater, manufactured after September 2, 2009, thermal/acoustic insulation materials installed in the lower half of the fuselage must meet the flame penetration resistance

requirements of §25.856 of this chapter, effective September 2, 2003.

[Doc. No. 28154, 60 FR 65930, Dec. 20, 1995, as amended by Amdt. 121-301, 68 FR 45083, July 31, 2003; Amdt. 121-320, 70 FR 77752, Dec. 30, 2005; Amdt. 121-330, 72 FR 1442, Jan. 12, 2007]

§ 121.313 Miscellaneous equipment.

No person may conduct any operation unless the following equipment is installed in the airplane:

(a) If protective fuses are installed on an airplane, the number of spare fuses approved for that airplane and appropriately described in the certificate holder's manual.

(b) A windshield wiper or equivalent for each pilot station.

(c) A power supply and distribution system that meets the requirements of §§25.1309, 25.1331, 25.1351(a) and (b)(1) through (4), 25.1353, 25.1355, and 25.1431(b) or that is able to produce and distribute the load for the required instruments and equipment, with use of an external power supply if any one power source or component of the power distribution system fails. The use of common elements in the system may be approved if the Administrator finds that they are designed to be reasonably protected against malfunctioning. Engine-driven sources of energy, when used, must be on separate engines.

(d) A means for indicating the adequacy of the power being supplied to required flight instruments.

(e) Two independent static pressure systems, vented to the outside atmospheric pressure so that they will be least affected by air flow variation or moisture or other foreign matter, and installed so as to be airtight except for the vent. When a means is provided for transferring an instrument from its primary operating system to an alternate system, the means must include a positive positioning control and must be marked to indicate clearly which system is being used.

(f) A door between the passenger and pilot compartments (i.e., flightdeck door), with a locking means to prevent passengers from opening it without the pilot's permission, except that nontransport category airplanes certificated after December 31, 1964, are not