

14 CFR part 25.853, 25.855, and 25.857 at the certification basis of the L-1011

Sec. 25.853 Compartment interiors.

[Materials (including finishes, if applied) used in each compartment occupied by the crew or passengers (other than materials such as wire insulation, conduit, plastic material in "black boxes", rub strips, pulleys, and small nonmetallic materials that are located behind interior walls or above interior ceilings) must meet the following test criteria, as applicable:

(a) Except as provided in paragraph (b) of this section, interior wall panels, interior ceiling panels, draperies, structural flooring, baggage racks, partitions (including wind screens), thermal insulation, light cover transparencies in panel form, and coated fabric insulation covering must be self-extinguishing after flame removal when tested in accordance with the applicable portions of Appendix F of this part or the applicable portions of Methods 5902 and 5906, dated May 15, 1951, or Federal Specification CCC-T-191b (which is available from the General Services Administration, Business Service Center, Region 3, Seventh and D Streets SW., Washington, D.C. 20407), or other approved equivalent method. All materials used in these applications must be tested vertically. If the material is tested vertically as a fabricated unit, a section of that fabricated unit must also be tested horizontally. The average char length may not exceed 8 inches when the material is tested vertically, and may not exceed 4 inches when the material is tested horizontally. Layered materials may not be separated for the purpose of this test.

(b) Thermoplastic window frames, clip-in trim strips, light reflectors, speaker cones, decompression grills, window transparencies, light cover transparencies not in panel form, ducting, edge-lighted instrument panels made from MIL-P-5425c finish sheet A or from L-P-380a, Type II, Class 3 methacrylate molding plastic, and any other interior materials not specified in paragraph (a) of this section must be at least flame resistant when tested horizontally under the applicable portions of Appendix F of this part, or the applicable portions of Method 5906, dated May 15, 1951 of Federal Specification CCC-T-191b, or other approved equivalent method. Layered materials may not be separated for the purpose of this test.]

(c) Each compartment where smoking is to be allowed must have self-contained, removable, ash trays, and each other compartment must be placarded against smoking;

(d) Each receptacle for towels, paper, or waste must be at least fire resistant and must have means for containing possible fires;

(e) There must be at least one hand fire extinguisher for use by the flight crewmembers; and

(f) There must be at least the following number of hand fire extinguishers conveniently located in passenger compartments:

<i>Passenger capacity:</i>	<i>Minimum number of hand fire extinguishers</i>
7 through 30	1
31 through 60	2
61 or more	3

Sec. 25.855

Cargo and baggage compartments.

[(a) Each cargo and baggage compartment (including tie down equipment) must be constructed of materials that at least meet the requirements set forth in Sec. 25.853.]

(b) No compartment may contain any controls, wiring, lines, equipment, or accessories whose damage or failure would affect safe operation, unless those items are protected so that--

(1) They cannot be damaged by the movement of cargo in the compartment, and

(2) Their breakage or failure will not create a fire hazard.

(c) There must be means to prevent cargo or baggage from interfering with the functioning of the fire-protective features of the compartment.

(d) Sources of heat within the compartment must be shielded and insulated to prevent igniting the cargo.

(e) Cargo compartments must meet one of the class requirements of Sec. 25.857. In addition, flight tests must be conducted to show compliance with the provisions of Sec. 25.857 concerning--

(1) Compartment accessibility;

(2) The entry of hazardous quantities of smoke or extinguishing agent into compartments occupied by the crew or passengers, and

(3) The dissipation of the extinguishing agent in Class C compartments.

During these tests, it must be shown that no inadvertent operation of smoke or fire detectors in any compartment would occur as a result of fire contained in any one compartment, either during or after extinguishment, unless the extinguishing system floods each such compartment simultaneously.

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Sec. 25.857

Cargo compartment classification.

(a) *Class A.* A Class A cargo or baggage compartment is one in which--

(1) The presence of a fire would be easily discovered by a crewmember while at his station; and

(2) Each part of the compartment is easily accessible in flight.

(b) *Class B.* A Class B cargo or baggage compartment is one in which--

(1) There is sufficient access in flight to enable a crewmember to effectively reach any part of the compartment with the contents of a hand fire extinguisher;

(2) When the access provisions are being used, no hazardous quantity of smoke, flames, or extinguishing agent, will enter any compartment occupied by the crew or passengers;

(3) There is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station; and

(4) There is a fire-resistant lining.

(c) *Class C.* A Class C cargo or baggage compartment is one not meeting the requirements for either a Class A or B compartment but in which--

(1) There is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station;

- (2) There is an approved built-in fire-extinguishing system controllable from the pilot or flight engineer stations;
 - (3) There are means to exclude hazardous quantities of smoke, flames, or extinguishing agent, from any compartment occupied by the crew or passengers;
 - (4) There are means to control ventilation and drafts within the compartment so that the extinguishing agent used can control any fire that may start within the compartment; and
 - (5) There is a fire-resistant lining.
- (d) *Class D.* A Class D cargo or baggage compartment is one in which--
- (1) A fire occurring in it will be completely confined without endangering the safety of the airplane or the occupants;
 - (2) There are means to exclude hazardous quantities of smoke, flames, or other noxious gases, from any compartment occupied by the crew or passengers;
 - (3) Ventilation and drafts are controlled within each compartment so that any fire likely to occur in the compartment will not progress beyond safe limits;
 - (4) There is a fire-resistant lining; and
 - (5) Consideration is given to the effect of heat within the compartment on adjacent critical parts of the airplane.

For compartments of 500 cu. ft. or less, an airflow of 1500 cu. ft. per hour is acceptable.

- (e) *Class E.* A Class E cargo compartment is one on airplanes used only for the carriage of cargo and in which--
- (1) There is a fire-resistant lining;
 - (2) There is a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station;
 - (3) There are means to shut off the ventilating airflow to, or within, the compartment, and the controls for these means are accessible to the flight crew in the crew compartment;
 - (4) There are means to exclude hazardous quantities of smoke, flames, or noxious gases, from the flight crew compartment; and
 - (5) The required crew emergency exits are accessible under any cargo loading condition.