§25.853 Compartment interiors.

For each compartment occupied by the crew or passengers, the following apply:

(a) Materials (including finishes or decorative surfaces applied to the materials) must meet the applicable test criteria prescribed in Part I of Appendix F of this Part, or other approved equivalent methods, regardless of the passenger capacity of the airplane.

(b) [Reserved]

(c) In addition to meeting the requirements of paragraph (a) of this section, seat cushions, except those on flight crewmember seats, must meet the test requirements of part II of Appendix F of this Part, or other equivalent methods, regardless of the passenger capacity of the airplane.

(d) Except as provided in paragraph (e) of this section, the following interior components of airplanes with passenger capacities of 20 or more must also meet the test requirements of parts IV and V of Appendix F of this Part, or other approved equivalent method, in addition to the flammability requirements prescribed in paragraph (a) of this section:

 Interior ceiling and wall panels, other than lighting lenses and windows;

(2) Partitions, other than transparent panels needed to enhance cabin safety; (3) Galley structure, including

exposed surfaces of stowed carts and standard containers and the cavity walls that are exposed when a full complement of such carts or containers is not carried; and

(4) Large cabinets and cabin stowage compartments, other than underseat stowage compartments for stowing small items such as magazines and maps.

(e) The interiors of compartments, such as pilot compartments, galleys, lavatories, crew rest quarters, cabinets and stowage compartments, need not meet the standards of paragraph (d) of this section, provided the interiors of such compartments are isolated from the main passenger cabin by doors or equivalent means that would normally be closed during an emergency landing condition.

(f) Smoking is not to be allowed in lavatories. If smoking is to be allowed in any other compartment occupied by the crew or passengers, an adequate number of self-contained, removable ashtrays must be provided for all seated occupants.

(g) Regardless of whether smoking is allowed in any other part of the airplane, lavatories must have selfcontained, 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 the ashtray can be seen readily from the cabin side of each lavatory served.

(h) Each receptacle used for the disposal of flammable waste material must be fully enclosed, constructed of at least fire resistant materials, and must contain fires likely to occur in it under normal use. The capability of the receptacle to contain those fires under all probable conditions of wear, misalignment, and ventilation expected in service must be demonstrated by test.

3. By amending part IV of Appendix F to Part 25 by revising paragraphs (a), (b)(1) through (6), (b)(8), (c)(1), (d) heading and (d)(1), (d)(3), (e)(1) through (5), (e)(8), (f)(2), and by adding paragraph (c)(3); transferring Figures 1 through 5 at the end of Appendix F to the end of part IV of Appendix F and adding a heading preceding the figures, and by removing Figure 1 of part IV and adding Figures 1A and 1B in its place to read as follows:

Appendix F to Part 25

* * * * * * Part IV—Test Method to Determine the Heat Release Rate from Cabin Materials Exposed to Radiant Heat.

(a) Summary of Method. Three or more specimens representing the completed aircraft component are tested. Each test specimen is injected into an environmental chamber through which a constant flow of air passes. The specimen's exposure is determined by a radiant heat source adjusted to produce, on the specimen, the desired total heat flux of 3.5 W/cm². The specimen is tested with the exposed surface vertical. Combustion is initiated by piloted ignition. The combustion products leaving the chamber are monitored in order to calculate the release rate of heat.

(b) * * *

(1) This apparatus is shown in Figures 1A and 1B of this part IV. All exterior surfaces of the apparatus, except the holding chamber, must be insulated with 1 inch (25 mm) thick, low density, high temperature, fiberglass board insulation. A gasketed door, through which the sample injection rod slides, must be used to form an airtight closure on the specimen hold chamber.

(2) *Thermopile.* The temperature difference between the air entering the environmental chamber and that leaving must be monitored by a thermopile having five hot, and five cold, 24-guage Chromel-Alumel junctions. The hot junctions must be spaced across the top of the exhaust stack, .38 inches (10 mm) below the top of the chimney. The

thermocouples must have a $.050 \pm .010$ inch $(1.3 \pm .3mm)$ diameter, ball-type, welded tip. One thermocouple must be located in the geometric center, with the other four located 1.18 inch (30 mm) from the center along the diagonal toward each of the corners (Figure 5 of this part IV). The cold junctions must be located in the pan below the lower air distribution plate (see paragraph (b)(4) of this part IV). Thermopile hot junctions must be cleared of soot deposits as needed to maintain the calibrated sensitivity.

(3) Radiation Source. A radiant heat source incorporating four Type LL silicon carbide elements, 20 inches (508 mm) long by .63 inch (16 mm) O.D., must be used, as shown in Figures 2A and 2B of this part IV. The heat source must have a nominal resistance of 1.4 ohms and be capable of generating a flux up to 100 kW/m². The silicone carbide elements must be mounted in the stainless steel panel box by inserting them through .63 inch (16 mm) holes in .03 inch (1 mm) thick ceramic fiber or calcium-silicate millboard. Locations of the holes in the pads and stainless steel cover plates are shown in Figure 2B of this part IV. The truncated diamondshaped mask of $.042 \pm .002$ inch $(1.07 \pm .05 \text{mm})$ stainless steel must be added to provide uniform heat flux density over the area occupied by the vertical sample.

(4) Air Distribution System. The air entering the environmental chamber must be distributed by a .25 inch (6.3 mm) thick aluminum plate having eight No. 4 drill-holes, located 2 inches (51 mm) from sides on 4 inch (102 mm) centers, mounted at the base of the environmental chamber. A second plate of 18 guage stainless steel having 120, evenly spaced, No. 28 drill holes must be mounted 6 inches (152 mm) above the aluminum plate. A well-regulated air supply is required. The air-supply manifold at the base of the pyramidal section must have 48, evenly spaced, No. 26 drill holes located .38 inch (10 mm) from the inner edge of the manifold, resulting in an airflow split of approximately three to one within the apparatus.

(5) *Exhaust Stack.* An exhaust stack, 5.25×2.75 inches $(133 \times 70 \text{ mm})$ in cross section, and 10 inches (254 mm) long, fabricated from 28 guage stainless steel must be mounted on the outlet of the pyramidal section. A. 1.0×3.0 inch $(25 \times 76 \text{ mm})$ baffle plate of $0.18 \pm .002$ inch $(.50 \pm .05 \text{ mm})$ stainless steel must be centered inside the stack, perpendicular to the air flow, 3 inches (76 mm) above the base of the stack.

(6) *Specimen Holders.* (i) The specimen must be tested in a vertical