

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Parts 25, 91, 121, 125, and 135**

[Docket No. FAA-2000-7909; Amdt. Nos. 25-110, 91-275, 121-289, 125-43, 135-85]

RIN 2120-AG91

Improved Flammability Standards for Thermal/Acoustic Insulation Materials Used in Transport Category Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting upgraded flammability standards for thermal and acoustic insulation materials used in transport category airplanes. These standards include new flammability tests and criteria that address flame propagation and entry of an external fire into the airplane. This action is necessary because the current standards do not realistically address situations in which thermal or acoustic insulation materials may contribute to the propagation of a fire. This action is intended to enhance safety by reducing the incidence and severity of cabin fires, particularly those in inaccessible areas where thermal and acoustic insulation materials are installed, and providing additional time for evacuation by delaying the entry of post-crash fires into the cabin.

DATES: This final rule is effective on September 2, 2003.

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SUPPLEMENTARY INFORMATION:

Availability of Rulemaking Documents

You can get an electronic copy of this final rule using the Internet by:

- (1) Searching the Department of Transportation's electronic Docket Management System (DMS) Web page (<http://dms.dot.gov/search>);
- (2) Visiting the Office of Rulemaking's Web page at <http://www.faa.gov/avr/arm/index.cfm>; or
- (3) Accessing the **Federal Register's** Web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue

SW., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the amendment number or docket number of this rulemaking.

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. Therefore, any small entity that has a question regarding this document may contact their local FAA official, or the person listed under **FOR FURTHER INFORMATION CONTACT**. You can find out more about SBREFA on the Internet at our site, <http://www.faa.gov/avr/arm/sbreffa.htm>. For more information on SBREFA, e-mail us at 9-AWA-SBREFA@faa.gov.

Background

On September 20, 2000, the FAA published a Notice of Proposed Rulemaking (NPRM) in which we proposed to adopt upgraded flammability standards for thermal and acoustic insulation materials used in transport category airplanes. See 65 FR 56992. The NPRM included the following:

- A test to measure the propensity of the insulation to spread a fire; and
- A test to measure the fire penetration resistance of the insulation.

Readers should refer to the NPRM for information about the background of this rulemaking, including descriptions of the following:

- The types of insulation materials used in airplanes;
- Other FAA regulations relating to insulation materials;
- Past incidents involving insulation materials; and
- Fire safety research activities and findings.

The background material in the NPRM also contains the basis and rationale for these requirements and, except where we have specifically expanded on the background elsewhere in this preamble, supports this final rule as if it were contained here. That is, any future discussions regarding the intent of the requirements may refer to the background in the NPRM as though it was in the final rule itself. It is therefore not necessary to repeat the background in this document.

The comment period on the NPRM extended 120 days and closed on January 18, 2001. We received comments on the NPRM from twenty-six commenters, including aircraft manufacturers, insulation

manufacturers, aviation industry associations, a labor union, and individuals. None of the commenters disagree with the objectives of the proposal. Ten of the commenters expressed explicit support for the objectives of the NPRM or for the NPRM in general. We discuss specific, substantive comments in the "Discussion of the Final Rule" section later in this preamble.

Legal Basis for the Final Rule

The FAA's authorizing legislation gives the agency general authority to take actions necessary to carry out the law, including prescribing regulations (49 U.S.C. 40113). The FAA is responsible for promoting safety in civil aviation and, in carrying out that responsibility, has the authority to prescribe minimum standards for the design, material, and construction of aircraft, among other things (49 U.S.C. 44701).

The regulations we are adopting today are intended to enhance the safety of civil aviation by reducing the possibility that insulation materials used in airplanes will contribute to either the spread of fire within airplanes or the penetration of external fire into airplanes. This final rule requires new airplane type designs to include insulation that passes improved flammability tests. It also requires manufacturers of new airplanes that enter service after a phase-in period to equip them with insulation that passes improved flammability tests. Finally, it requires air carriers, operating under part 121, to use insulation meeting the new flame propagation requirements when they replace insulation.

The flammability tests we are adopting today will not eliminate all damage to, or losses of, airplanes by fire, nor prevent all injuries or deaths from airplanes fires. The improved tests will, however, ensure that insulation used in airplanes will resist the propagation of fire and thereby reduce the severity of fires or the speed with which fires spread. They will also ensure that insulation will delay the penetration of the airplanes by fire from outside. These effects will give flight crews additional time to safely land or taxi, as well as giving both passengers and crew more time to safely evacuate airplanes.

This final rule is focused on the goal of enhancing the safety of civil aviation. The regulations adopted today have their origin in incidents described in the NPRM where insulation that met our previous flammability standards may have contributed to airplane fires. Since we published the NPRM, there have been two more incidents where in-flight