

Proposed Rules

Federal Register

Vol. 73, No. 35

Thursday, February 21, 2008

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 33

[Docket No. FAA-2007-28503; Notice No. 08-01]

RIN 2120-AJ04

Airworthiness Standards; Fire Protection

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: This notice proposes to change aircraft engine fire protection certification standards to upgrade and harmonize them with European Aviation Safety Agency (EASA) requirements. The proposed changes, if adopted, would provide nearly uniform fire protection certification standards for engines certificated in the United States under 14 CFR part 33 and in European countries under EASA Certification Specifications for Engines (CS-E), and would simplify international type certification.

DATES: Send your comments on or before May 21, 2008.

ADDRESSES: You may send comments identified by Docket Number FAA-2007-28503 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov/> and follow the online instructions for submitting comments electronically.
- *Mail:* Send comments to the Docket Operations, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- *Hand Delivery or Courier:* Bring comments to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- *Fax:* Fax comments to the Docket Operations at 202-493-2251.

For more information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

Privacy: We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. Using the search function of our docket Web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published April 11, 2000 [65 FR 19477-78] or you may visit <http://DocketsInfo.dot.gov>.

Docket: To read background documents or comments received, go to <http://www.regulations.gov> at any time or to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT:

Marc Bouthillier, Engine and Propeller Directorate Standards Staff, ANE-110, Engine and Propeller Directorate, Aircraft Certification Service, FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803-5299; telephone (781) 238-7120; fax (781) 238-7199; e-mail marc.bouthillier@faa.gov.

SUPPLEMENTARY INFORMATION: Later in this preamble under the Additional Information section, we discuss how you can comment on this proposal and how we will handle your comments. Included in this discussion is related information about the docket, privacy, and the handling of proprietary or confidential business information. We also discuss how you can get a copy of this proposal and related rulemaking.

Authority for This Rulemaking

The FAA's authority to issue rules regarding aviation safety is in Title 49 of the United States Code. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce, including minimum safety standards for aircraft engines. This proposed rule is within the scope of that authority because it updates the existing regulations for aircraft engine fire protection.

Background

Part 33 of Title 14 of the Code of Federal Regulations (14 CFR part 33) prescribes airworthiness standards for original and amended type certificates for aircraft engines certificated in the United States (U.S.). The Certification Specifications for Engines (CS-E) prescribe corresponding airworthiness standards for aircraft engine certification in Europe by the European Aviation Safety Agency (EASA). While part 33 and the European regulations are similar, they differ in several respects. These differences can result in additional costs and delays.

In 1989, the FAA met with the European Joint Aviation Authorities, U.S. and European aviation industry representatives to harmonize U.S. and European certification standards. Transport Canada subsequently joined this effort. The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC) through its Engine Harmonization Working Group to review existing regulations and recommend changes to eliminate differences in U.S. and European engine certification fire protection standards. This proposed rule is based on Aviation Rulemaking Advisory Committee (ARAC) recommendations to the FAA.

General Discussion of the Proposal

This notice proposes to change the fire protection standards for issuing original and amended aircraft engine type certificates. This proposal results from an effort to improve and harmonize Federal Aviation Regulations 14 CFR part 33 with the European requirements of EASA CS-E. The proposal addresses ARAC recommendations, concurred with by industry, and based on language

generally common to both part 33 and CS-E.

Our proposed changes would provide nearly uniform fire protection certification standards for engines certificated in the United States under part 33 and in Europe under EASA CS-E, thereby simplifying aircraft engine import and export activities. The proposal also reflects current industry design and FAA certification practices.

Section 33.17 Fire Protection

Section 33.17 sets standards for fire prevention and protection in the design and construction of aircraft engines. Our proposal would change the section title from "Fire Prevention" to "Fire Protection" and harmonize the section with CS-E standards. We propose to modify the section as follows:

(1) Clarify existing requirements in paragraphs (a), (b), (c), and (e),

(2) Delete current requirements for supersonic engines from paragraph (d), and add new requirements for components acting as firewalls,

(3) Renumber paragraph (e) as new paragraph (f),

(4) Add new paragraph (e) to specify requirements for engine control systems; and

(5) Add new paragraph (g) to include requirements for electrical bonding.

Our proposed change to paragraph (b) would differentiate between drain lines and other components and would not apply to certain drain lines. This revision would be consistent with our fire protection requirements in §§ 23.1183(b)(2), 25.1183(b)(2), 27.1183(b)(2), and 29.1183(b)(2).

Proposed paragraph (c) adds "associated shut-off means" to the first sentence; changes "must be fireproof or be enclosed by fireproof shield" to "must be fireproof by construction or protection"; and incorporates the term "hazardous quantity". The addition of the term "shutoff means" adds tank shutoff devices to the rule's applicability, and thereby provides additional margin against feeding a fire from a flammable fluid tank due to failure of such a device. A shutoff means can be separate from the tank itself, but is an integral part of the tank system and needs to be considered under these fire protection requirements. Other proposed changes are clarifying in nature and would harmonize U.S. and European standards.

The FAA proposes to remove the requirements in current paragraph (d) in response to recommendations resulting from an FAA/ARAC review of an industry study on supersonic transports. The study concluded the maximum

temperature levels of controls and accessories installed in supersonic aircraft were not significantly greater than maximum temperature levels of components installed in subsonic applications. The study showed that components used on supersonic applications required no additional fire protection because the severity, frequency, and duration of fire would be similar to those found in subsonic applications. The study showed, and we agree, that additional fire protection is not required for these components.

Proposed new paragraph (d) would require that even though the noted components do not contain or convey flammable fluids, by their definition, they must be fireproof. This proposal will add requirements consistent with §§ 23.1191, 25.1191, 27.1191, and 29.1191 "Firewalls".

We propose to redesignate current paragraph (e) as paragraph (f) and rephrase the text for clarity.

Our new proposed paragraph (e) would address engine control system effects when associated components are exposed to a fire. Control system components (for example, electronic, fiber optic, hydromechanical) should not cause any hazardous effects when exposed to fire, and should be addressed in the fire protection section. These proposed new requirements would be consistent with the associated aircraft requirements. The designated fire zones in new paragraph (e) are defined in existing §§ 23.1181, 25.1181, and 29.1181. Our proposed paragraph (g) would minimize static discharge sources of ignition for flammable fluids or vapors.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. We have determined that no new information collection requirements are associated with this proposed rule.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, FAA policy is to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. We determined that no ICAO Standards and Recommended Practices correspond to these proposed regulations.

Regulatory Evaluation, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation from the base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule.

Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If the expected cost impact is so minimal that a proposed rule does not warrant a full evaluation, this Order permits that a statement to that effect and the basis for it to be included in the preamble if a full regulatory evaluation of the costs and benefits is not prepared. Such a determination has been made for this proposed rule.

Presently, turbine airplane engine manufacturers must satisfy both the FAA and the EASA certification standards in order for airplane manufacturers to market airplanes with those engines in both the United States and Europe. Meeting two different sets of certification requirements can raise the cost of developing a new airplane engine without increasing safety. In the interest of fostering international trade, lowering the cost of airplane engine development, making the certification process more efficient, and enhancing safety, the FAA, EASA, and airplane engine manufacturers have been working to create to the maximum

possible extent a common set of certification requirements accepted in both the United States and Europe.

The FAA estimates that there would be minimal costs associated with this proposed rule. A review of information provided by manufacturers of turbine airplane engines certificated under part 33 has revealed that all such future airplane engines are expected to be certificated under both FAA and EASA standards. As this proposed rule would unify these requirements in a common international standard, and certificated turbine airplane engines currently meet both sets of requirements, manufacturers would incur minimal additional costs from this proposed rule. In fact, manufacturers are expected to receive cost-savings from a reduction in the amount of duplicate documentation of tests for the two different sets of requirements. Further, the proposed rule would codify existing industry practices into the regulations. The FAA has not attempted to quantify the cost savings that may accrue due to this specific proposed rule, beyond noting that while they may be minimal, they would contribute to a potential harmonization savings. The agency has made that conclusion based on the consensus among potentially affected airplane engine manufacturers. Further, the current level of safety would be enhanced as a result of the proposed rule. As a result, the FAA has concluded that this proposed rule would be cost beneficial. The FAA requests comments regarding this determination.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 96–354) (RFA) establishes as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration. The RFA covers a wide range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare an initial regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The FAA concluded that this proposed rule would not have a significant impact on a substantial number of small entities for two reasons. First, as noted earlier, the net effect of the proposed rule would provide regulatory cost relief. Second, all United States turbine airplane engine manufacturers but one, exceed the Small Business Administration small-entity criteria of 1,500 employees for airplane engine manufacturers. United States transport category airplane engine manufacturers include: General Electric, CFM International, Pratt & Whitney, International Aero Engines, Rolls-Royce Corporation, Honeywell, and Williams International. Williams International is the only one of these manufacturers that is a U.S. small business.

Given that we believe this proposed rule would reduce costs, and that only one part 33-airplane engine manufacturer currently qualifies as a small entity, the FAA certifies that this proposed rule would not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39) prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined it responds to a domestic safety objective and is not considered an unnecessary barrier to trade.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure of \$100 million or more (adjusted annually for inflation) by

State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a “significant regulatory action.” The FAA currently uses an inflation-adjusted value of \$128.1 million in lieu of \$100 million.

This proposed rule does not contain such a mandate. The requirements of Title II do not apply.

Executive Order 13132, Federalism

The FAA analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government, and therefore would not have federalism implications.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. We determined that this proposed rulemaking action qualifies for the categorical exclusion identified in Chapter 3, paragraph 312d and involves no extraordinary circumstances.

Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this NPRM under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). We have determined that it is not a “significant energy action” under the executive order because it is not a “significant regulatory action” under Executive Order 12866, and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Additional Information

Comments Invited

The FAA invites interested persons to participate in this rulemaking by sending written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments,

please send only one copy of written comments, or if you are filing comments electronically, please submit your comments only one time.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. The docket is available for public inspection before and after the comment closing date. Before acting on this proposal, we will consider all comments received on or before the closing date for comments. Comments filed after the comment period closes are considered if possible to do so without incurring expense or delay. We may change this proposal in light of the comments received.

Proprietary or Confidential Business Information

Do not file in the docket information that you consider proprietary or confidential business information. Send or deliver this information directly to the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document. You must mark the information that you consider proprietary or confidential. If you send the information on a disk or CD-ROM, mark the outside of the disk or CD-ROM and identify electronically within the disk or CD-ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), when we are aware of proprietary information filed with a comment, we do not place it in the docket. We hold it in a separate file to which the public does not have access, and we place a note in the docket that we have received it. If we receive a request to examine or copy this information, we treat it as any other request under the Freedom of Information Act (5 U.S.C. 552). We process such a request under the DOT procedures found in 49 CFR part 7.

Availability of Rulemaking Documents

You can get an electronic copy using the Internet by:

- (1) Searching the Federal eRulemaking Portal (<http://www.regulations.gov>),
- (2) Visiting the FAA's Regulations and Policies web page at http://www.faa.gov/regulations_policies/, or
- (3) Accessing the Government Printing Office's web page at <http://www.gpoaccess.gov/fr/index.html>.

You can also get a copy by sending 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 docket number, notice number, or amendment number of this rulemaking.

List of Subjects in 14 CFR Part 33

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend part 33 of the Federal Aviation Regulations (14 CFR part 33) as follows:

PART 33—AIRWORTHINESS STANDARDS: AIRCRAFT ENGINES

1. The authority citation for part 33 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, 44704.

2. Section 33.17 is revised to read as follows:

§ 33.17 Fire protection.

(a) The design and construction of the engine and the materials used must minimize the probability of the occurrence and spread of fire during normal operation and failure conditions, and must minimize the effect of such a fire. In addition, the design and construction of turbine engines must minimize the probability of the occurrence of an internal fire that could result in structural failure or other hazardous effects.

(b) Except as provided in paragraph (c) of this section, each external line, fitting, and other component, which contains or conveys flammable fluid during normal engine operation must be fire resistant or fireproof, as applicable. Components must be shielded or located to safeguard against the ignition of leaking flammable fluid.

(c) A tank, which contains flammable fluids and any associated shut-off means and supports, which are part of and attached to the engine, must be fireproof either by construction or by protection unless damage by fire will not cause leakage or spillage of a hazardous quantity of flammable fluid. For a reciprocating engine having an integral oil sump of less than 23.7 liters capacity, the oil sump need not be fireproof or enclosed by a fireproof shield.

(d) An engine component designed, constructed, and installed to act as a firewall must be:

- (1) Fireproof,
- (2) Constructed so that no hazardous quantity of air, fluid or flame can pass around or through the firewall, and,
- (3) Protected against corrosion,

(e) In addition to the requirements of paragraphs (a) and (b) of this section, engine control system components that are located in a designated fire zone must be fire resistant or fireproof, as applicable.

(f) Unintentional accumulation of hazardous quantities of flammable fluid within the engine must be prevented by draining and venting.

(g) Any components, modules, or equipment, which are susceptible to or are potential sources of static discharges or electrical fault currents must be designed and constructed to be properly grounded to the engine reference, in order to minimize the risk of ignition in external areas where flammable fluids or vapors could be present.

Issued in Washington, DC on February 12, 2008.

Dorenda D. Baker,

Deputy Director, Aircraft Certification Service.

[FR Doc. E8-3271 Filed 2-20-08; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0182; Directorate Identifier 2007-NM-262-AD]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135ER, -135KE, -135KL, and -135LR Airplanes, and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for the products listed above. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

Fuel system reassessment, performed according to RBHA-E88/SFAR-88 (Regulamento Brasileiro de Homologacao Aeronautica 88/Special Federal Aviation Regulation No. 88), requires the inclusion of new maintenance tasks in the Critical Design Configuration Control Limitations (CDCCL) and in the Fuel System Limitations (FSL),