Task Assignment

[Federal Register: November 26, 1999 (Volume 64, Number 227)]
[Notices]
[Page 66522-66524]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr26no99-123]

==========

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Transport Airplane and Engine Issues--New and Revised Tasks

AGENCY: Federal Aviation Administration (**FAA**), DOT.

ACTION: Notice of new and revised task assignments for the Aviation Rulemaking Advisory Committee (ARAC).

SUMMARY: Notice is given of new tasks assigned to and accepted by the Aviation Rulemaking Advisory Committee (ARAC) and of revisions to a number of existing tasks. This notice informs the public of the activities of ARAC.

FOR FURTHER INFORMATION CONTACT: Dorenda Baker, Transport Airplane Directorate, Aircraft Certification Service (ANM-110), 1601 Lind Avenue, SW., Renton, WA 98055; phone (425) 227-2109; fax (425) 227-1320.

SUPPLEMENTARY INFORMATION:

Background

The **FAA** has established an Aviation Rulemaking Advisory Committee to provide advice and recommendations to the **FAA** Administrator, through the Associate Administrator for Regulation and Certification, on the full range of the **FAA**'s rulemaking activities with respect to aviation-related issues. This includes obtaining advice and recommendations on the **FAA**'s commitment to harmonize its Federal Aviation Regulations (FAR) and practices with its trading partners in Europe and Canada.

One area ARAC deals with is transport airplane and engine issues. These issues involve the airworthiness standards for transport category

[[Page 66523]]

airplanes and engines in 14 CFR parts 25, 33, and 35 and parallel provisions in 14 CFR parts 121 and 135. The corresponding Canadian standards are contained in Parts V, VI, and VII of the Canadian Aviation Regulations. The corresponding European standards are contained in Joint Aviation Requirements (JAR) 25, JAR-E, JAR-P, JAR-OPS-Part 1, and JAR-26.

As proposed by the U.S. and European aviation industry, and as

agreed between the Federal Aviation Administration (**FAA**) and the European Joint Aviation Authorities (JAA), an accelerated process to reach harmonization has been adopted. This process is based on two procedures:

(1) Accepting the more stringent of the regulations in Title 14 of the Code of Federal Regulations (FAR), Part 25, and the Joint Airworthiness Requirements (JAR); and

(2) Assigning approximately 41 already-tasked significant regulatory differences (SRD), and certain additional part 25 regulatory differences, to one of three categories:

<bullet> Category 1--Envelope
<bullet> Category 2--Completed or near complete
<bullet> Category 3--Harmonize

The Revised Tasks

ARAC will review the rules identified in the ``FAR/JAR 25 Differences List,'' dated June 30, 1999, and identify changes to the regulations necessary to harmonize part 25 and JAR 25. ARAC will submit a technical report on each rule. Each report will include the cost information that has been requested by the **FAA**. The tasks currently underway in ARAC to harmonize the listed rules are superseded by this tasking.

New Tasks

The **FAA** has submitted a number of new tasks for the Aviation Rulemaking Advisory Committee (ARAC), Transport Airplane and Engine Issues. As agreed by ARAC, these tasks will be accomplished by existing harmonization working groups. The tasks are regulatory differences identified in the above-referenced differences list as Rule type = P-SRD.

New Working Group

In addition to the above new tasks, a newly established Cabin Safety Harmonization Working Group will review several FAR/JAR paragraphs as follows:

ARAC will review the following rules and identify changes to the regulations necessary to harmonize part 25 and JAR:

(1) Section 25.787;
(2) Section 25.791(a) to (d);
(3) Section 25.810;
(4) Section 25.811;
(5) Section 25.819; and
(6) Section 25.813(c).

ARAC will submit a technical report on each rule. Each report will include the cost information that has been requested by the **FAA**.

The Cabin Safety Harmonization Working Group would be expected to complete its work for the first five items (identified as Category 1 or 2) before completing item 6 (identified as Category 3).

Schedule

Within 120 days of tasking/retasking:

<bullet> For Category 1 tasks, ARAC submits the Working Groups' technical reports to the **FAA** to initiate drafting of proposed rulemaking documents.

<bullet> For Category 2 tasks, ARAC submits technical reports, including already developed draft rules and/or advisory materials, to the **FAA** to complete legal review, economic analysis, coordination, and issuance.

June 2000: For Category 3 tasks, ARAC submits technical reports including draft rules and/or advisory materials to the **FAA** to complete legal review, economic analysis, coordination, and issuance.

ARAC Acceptance of Tasks

ARAC has accepted the new tasks and has chosen to assign all but one of them to existing harmonization working groups. A new Cabin Safety Harmonization Working Group will be formed to complete the remaining tasks. The working groups serve as staff to ARAC to assist ARAC in the analysis of the assigned tasks. Working group recommendations must be reviewed and approved by ARAC. If ARAC accepts a working group's recommendations, it forwards them to the **FAA** and ARAC recommendations.

Working Group Activity

All working groups are expected to comply with the procedures adopted by ARAC. As part of the procedures, the working groups are expected to accomplish the following:

1. Document their decisions and discuss areas of disagreement, including options, in a report. A report can be used both for the enveloping and for the harmonization processes.
2. If requested by the **FAA**, provide support for disposition of the comments received in response to the NPRM or review the **FAA**'s prepared disposition of comments. If support is requested, the Working Group will review comments/disposition and prepare a report documenting their recommendations, agreement, or disagreement. This report will be submitted by ARAC back to the **FAA**.
3. Provide a status report at each meeting of ARAC held to consider Transport Airplane and Engine Issues.

Partcipation in the Working Groups

Membership on existing working groups will remain the same, with the formation of subtask groups, if appropriate. The Cabin Safety Harmonization Working Group will be composed of technical experts having an interest in the assigned task. A working group member need not be a representative of a member of the full committee.

An individual who has expertise in the subject matter and wishes to become a member of the Cabin Safety Harmonization Working Group should write to the person listed under the caption FOR FURTHER INFORMATION CONTACT expressing that desire, describing his or her interest in the tasks, and stating the expertise he or she would bring to the working group. All requests to participate must be received no later than December 30, 1999. The requests will be reviewed by the assistant chair, the assistant executive director, and the working group chair, and the individuals will be advised whether or not the request can be accommodated.

Individuals chosen for membership on the Cabin Safety Harmonization Working Group will be expected to represent their aviation community segment and participate actively in the working group (e.g., attend all meetings, provide written comments when requested to do so, etc.). They also will be expected to devote the resources necessary to ensure the ability of the working group to meet any assigned deadline(s). Members are expected to keep their management chain advised of working group activities and decisions to ensure that the agreed technical solutions do not conflict with their sponsoring organization's position when the subject being negotiated is presented to ARAC for a vote.

Once the working group has begun deliberations, members will not be added or substituted without the approval of the assistant chair, the assistant executive director, and the working group chair.

The Secretary of Transportation has determined that the formation and use of ARAC are necessary and in the public interest in connection with the performance of duties imposed on the **FAA** by law.

[[Page 66524]]

Meetings of ARAC will be open to the public. Meetings of the working groups will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of working group meetings will be made.

Issued in Washington, DC, on November 19, 1999.
Anthony F. Fazio,
Executive Director, Aviation Rulemaking Advisory Committee.
[FR Doc. 99-30774 Filed 11-24-99; 8:45 am]
BILLING CODE 4910-13-M

Recommendation Letter

Pratt & Whitney
400 Main Street
East Hartford, CT 06108

Pratt & Whitney
A United Technologies Company

March 10, 2000

Federal Aviation Administration
800 Independence Avenue
Washington, DC 20591

Attention: Thomas McSweeny, Associate Administrator for Regulation and Certification

Subject: ARAC Recommendations

Reference: ARAC Tasking, Federal Register, November 26, 1999

Dear Tom:

In accordance with the reference the ARAC Transport Airplane and Engine Issues Group is pleased to forward the following "fast track" reports as recommendations to the FAA:

25.869(a)
25.899
25.1309(b) – Note: It was agreed that this item should remain a "fast track" Category 1 project
25.1310
25.1351(b)
25.1351(c)
25.1353(a)
25.1353(c)(5)
25.1353(c)(6)
25.1353(d)
25.1355(c)
25.1357
25.1431(d)

These reports have been prepared by the Electical Systems Harmonization Working Group.

Sincerely yours,

Craig R. Bolt

Craig R. Bolt
Assistant Chair, TAEIG

cc : Kris Larsen – FAA – NWR
*Dorenda Baker – FAA – NWR
Effie Upshaw – FAA – Washington, DC – ARM
*Brian Overhuls – Boeing

*Letter only

Recommendation

ANM-00-087-A 13

ARAC Electrical Systems Harmonization Working Group
Final ARAC ESHWG REPORT 25.869(a)
30 November 1999

OLD # ANM-00-087-A TAE

1 - What is underlying safety issue addressed by the FAR/JAR? *[Explain the underlying safety rationale for the requirement. Why does the requirement exist?]*

FAR/JAR 25.869(a) address fire protection of electrical system components and provide specific standards to be met depending on location and type of cables.

2 - What are the current FAR and JAR standards? *[Reproduce the FAR and JAR rules text as indicated below.]*

Current FAR text:

Sec. 25.869 Fire protection: systems.

(a) Electrical system components:

(1) Components of the electrical system must meet the applicable fire and smoke protection requirements of Secs. 25.831(c) and 25.863.

(2) Electrical cables, terminals, and equipment in designated fire zones, that are used during emergency procedures, must be at least fire resistant.

(3) Main power cables (including generator cables) in the fuselage must be designed to allow a reasonable degree of deformation and stretching without failure and must be--

(i) Isolated from flammable fluid lines; or

(ii) Shrouded by means of electrically insulated, flexible conduit, or equivalent, which is in addition to the normal cable insulation.

(4) Insulation on electrical wire and electrical cable installed in any area of the fuselage must be self-extinguishing when tested in accordance with the applicable portions of part I, appendix F of this part.

Current JAR text:

JAR 25.869 Fire protection: systems

(a) Electrical system components:

(1) Components of the electrical system must meet the applicable fire and smoke protection requirements of JAR 25.831(c) and JAR 25.863. (See ACJ 25.869 (a)(1).)

(2) Electrical cables, terminals, and equipment in designated fire zones, that are used during emergency procedures, must be at least fire resistant.

(3) Main power cables (including generator cables) in the fuselage must be designed to allow a reasonable degree of deformation and stretching without failure and must be -
   (i) Isolated from flammable fluid lines; or
   (ii) Shrouded by means of electrically insulated, flexible conduit, or equivalent, which is in addition to the normal cable insulation.

(4) Insulation on electrical wire and electrical cable installed in any area of the aeroplane must be self-extinguishing when tested in accordance with the applicable portions of Part I, Appendix F.

3 - What are the differences in the standards and what do these differences result in?

[Explain the differences in the standards, and what these differences result in relative to (as applicable) design features/capability, safety margins, cost, stringency, etc.]

The regulatory difference is within 25.869(a)(4) where JAR refers to "aeroplane" and FAR refers to "fuselage". The technical need and accepted industry practice and Regulatory Authority application is that all wiring installed in the airframe and engines, (i.e., not just those in the fuselage), is self extinguishing. The JAR text introduced by NPA 25DF-191 is such that the requirement reflects this standard.

4 - What, if any, are the differences in the means of compliance?

[Provide a brief explanation of any differences in the compliance criteria or methodology, including any differences in either criteria, methodology, or application that result in a difference in stringency between the standards.]

JAR has a specific ACJ related to 25.869(a)(1):

ACJ 25.869: Electrical System Fire and Smoke Protection (Interpretative Material and Acceptable Means of Compliance)
See JAR 25.869

These requirements, and those of JAR 25.863 applicable to electrical equipment, may be satisfied by the following:

1 Electrical components in regions immediately behind firewalls and in engine pod attachment structures should be of such materials and at such a distance from the firewall that they will not suffer damage that could hazard the aeroplane if the surface of the firewall adjacent to the fire is heated to 1100°C for 15 minutes.

2 Electrical equipment should be so constructed and/or installed that in the event of failure, no hazardous quantities of toxic or noxious (e.g. smoke) products will be distributed in the crew or passenger compartments.

3 Electrical equipment, which may come into contact with flammable vapours should be so designed and installed as to minimise the risk of the vapours exploding under both normal and fault conditions. This can be satisfied by meeting the Explosion Proofness Standards of draft ISO document TC20/SC5/N.43, dated 1974.

5 - What is the proposed action? *[Is the proposed action to harmonize on one of the two standards, a mixture of the two standards, propose a new standard, or to take some other action? Explain what action is being proposed (not the regulatory text, but the underlying rationale) and why that direction was chosen.]*

According to the Better Plan for Harmonization, FAR/JAR 25.869(a) is to be enveloped to the "most stringent" requirement, which is JAR 25.869(a). This is also in line with current design practices.

6 - What should the harmonized standard be? *[Insert the proposed text of the harmonized standard here]*

The current text of JAR 25.869(a) *[see above]* is proposed as the harmonized standard.

7 - How does this proposed standard address the underlying safety issue (identified under #1)? *[Explain how the proposed standard ensures that the underlying safety issue is taken care of.]*

The proposal can be considered as a clarification of existing requirements and in line with current practices.

8 - Relative to the current FAR, does the proposed standard increase, decrease, or maintain the same level of safety? Explain. *[Explain how each element of the proposed change to the standards affects the level of safety relative to the current FAR. It is possible that some portions of the proposal may reduce the level of safety even though the proposal as a whole may increase the level of safety.]*

The proposed standard increases the level of safety because JAR refers to aeroplane while the FAR refers to fuselage only.

9 - Relative to current industry practice, does the proposed standard increase, decrease, or maintain the same level of safety? Explain. *[Since industry practice may be different than what is required by the FAR (e.g., general industry practice may be more restrictive), explain how each element of the proposed change to the standards affects the level of safety relative to current industry practice. Explain whether current industry practice is in compliance with the proposed standard.]*

This proposal is in line with current industry practices and therefore maintains the same level of safety.

10 - What other options have been considered and why were they not selected? *[Explain what other options were considered, and why they were not selected (e.g., cost/benefit, unacceptable decrease in the level of safety, lack of consensus, etc.]*

The adoption of FAR was considered; however, for the reasons as stated above JAR was selected.

11 - Who would be affected by the proposed change? *[Identify the parties that would be materially affected by the rule change – airplane manufacturers, airplane operators, etc.]*

As the proposal is in line with current design practices, the effect is considered to be minimum for Aircraft Operators and Manufacturers affected by this change.

12 - To ensure harmonization, what current advisory material (e.g., ACJ, AMJ, AC, policy letters) needs to be included in the rule text or preamble? *[Does the existing advisory material include substantive requirements that should be contained in the regulation? This may occur because the regulation itself is vague, or if the advisory material is interpreted as providing the only acceptable means of compliance.]*

No current advisory material is proposed to be included in the rule.

13 - Is existing FAA advisory material adequate? If not, what advisory material should be adopted? *[Indicate whether the existing advisory material (if any) is adequate. If the current advisory material is not adequate, indicate whether the existing material should be revised, or new material provided. Also, either insert the text of the proposed advisory material here, or summarize the information it will contain, and indicate what form it will be in (e.g., Advisory Circular, policy, Order, etc.)]*

There is no current published FAA advisory material. It is recommended that the JAR ACJ to 25.869(a)(1) be adopted in FAA advisory material with modification of reference to draft ISO document TC20/SC5/N.43, dated 1974 by reference to RTCA DO-160/EUROCAE ED-14 which is the up to date document; so that it reads:

ACJ 25.869: Electrical System Fire and Smoke Protection (Interpretative Material and Acceptable Means of Compliance)
See JAR 25.869

These requirements, and those of JAR 25.863 applicable to electrical equipment, may be satisfied by the following:

1 Electrical components in regions immediately behind firewalls and in engine pod attachment structures should be of such materials and at such a distance from the firewall that they will not suffer damage that could hazard the aeroplane if the surface of the firewall adjacent to the fire is heated to 1100°C for 15 minutes.

2 Electrical equipment should be so constructed and/or installed that in the event of failure, no hazardous quantities of toxic or noxious (e.g. smoke) products will be distributed in the crew or passenger compartments.

3 Electrical equipment, which may come into contact with flammable vapours should be so designed and installed as to minimise the risk of the vapours exploding under both normal and fault conditions. This can be satisfied by meeting the Explosion Proofness Standards of **RTCA DO-160/EUROCAE ED-14**.

14 - How does the proposed standard compare to the current ICAO standard? *[Indicate whether the proposed standard complies with or does not comply with the applicable ICAO standards (if any)]*

There is no specific ICAO standard for this subject

15 - Does the proposed standard affect other HWG's? *[Indicate whether the proposed standard should be reviewed by other harmonization working groups and why.]*

This proposal does not affect other HWG's.

16 - What is the cost impact of complying with the proposed standard? *[Is the overall cost impact likely to be significant, and will the costs be higher or lower? Include any cost savings that would result from complying with one harmonized rule instead of the two existing standards. Explain what items affect the cost of complying with the proposed standard relative to the cost of complying with the current standard.]*

As the proposal is in line with current design practices, the cost impact will be negligible. No new designs, testing, equipment installations, or maintenance procedures are anticipated.

17 - Does the HWG want to review the draft NPRM at "Phase 4" prior to publication in the Federal Register?

No.

18 – In light of the information provided in this report, does the HWG consider that the "Fast Track" process is appropriate for this rulemaking project, or is the project too complex or controversial for the Fast Track Process. Explain. *[A negative answer to this question will prompt the FAA to pull the project out of the Fast Track process and forward the issues to the FAA's Rulemaking Management Council for consideration as a "significant" project.]*

The ESHWG considers that the fast track harmonization process is appropriate for this rule.

FAA Action: Advisory Circular 25.869-1 and Advisory Circular 25.1353-1 in Regulatory Guidance Library

Federal Register

Tuesday,
May 15, 2001

Part VI

Department of Transportation

Federal Aviation Administration

14 CFR Part 25

Fire Protection of Electrical System Components on Transport Category Airplanes; Proposed Rule

Proposed Advisory Circular 25.869–1X, Electrical System Fire and Smoke Protection; Notice

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2001–9637; Notice No. 01–06]

RIN 2120–AG92

Fire Protection of Electrical System Components on Transport Category Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Federal Aviation Administration proposes to amend the airworthiness standards for transport category airplanes concerning the protection of electrical system components. Adopting this proposal would eliminate regulatory differences between the airworthiness standards of the U.S. and the Joint Aviation Requirements of Europe, without affecting current industry design practices.

DATES: Send your comments on or before July 16, 2001.

ADDRESSES: Address your comments to Dockets Management System, U.S. Department of Transportation Dockets, Room Plaza 401, 400 Seventh Street SW., Washington, DC 20590–0001. You must identify the docket number, FAA–2001–9637, at the beginning of your comments, and you should submit two copies of your comments. If you wish to receive confirmation that the FAA has received your comments, please include a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2001–9637.'' We will date-stamp the postcard and mail it back to you.

You also may submit comments electronically to the following Internet address: *http://dms.dot.gov.*

You may review the public docket containing comments to this proposed regulation at the Department of Transportation (DOT) Dockets Office, located on the plaza level of the Nassif Building at the above address. You may review the public docket in person at this address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. Also, you may review the public dockets on the Internet at *http://dms.dot.gov.*

FOR FURTHER INFORMATION CONTACT: Massoud Sadeghi, FAA, Airplane and Flight Crew Interface Branch, ANM–111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, WA 98055–4056; telephone 425–227–2117; facsimile 425–227–1320, e-mail massoud.sadeghi@faa.gov.

SUPPLEMENTARY INFORMATION:

How Do I Submit Comments to This NPRM?

Interested persons are invited to participate in the making of the proposed action by submitting such written data, views, or arguments, as they may desire. Comments relating to the environmental, energy, federalism, or economic impact that might result from adopting the proposals in this document are also invited. Substantive comments should be accompanied by cost estimates. Comments must identify the regulatory docket number and be submitted in duplicate to the DOT Rules Docket address specified above.

All comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking, will be filed in the docket. The docket is available for public inspection before and after the comment closing date.

We will consider all comments received on or before the closing date before taking action on this proposed rulemaking. Comments filed late will be considered as far as possible without incurring expense or delay. The proposals in this document may be changed in light of the comments received.

How Can I Obtain a Copy of This NPRM?

You can get an electronic copy using the Internet by taking the following steps:

(1) Go to the search function of the Department of Transportation's electronic Docket Management System (DMS) web page (http://dms.dot.gov/search).

(2) On the search page type in the last four digits of the Docket number shown at the beginning of this notice. Click on ''search.''

(3) On the next page, which contains the Docket summary information for the Docket you selected, click on the document number of the item you wish to view.

You can also get an electronic copy using the Internet through the Office of Rulemaking's web page at http://www.faa.gov/avr/armhome.htm or 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 docket number, notice number, or amendment number of this rulemaking.

Background

What Are the Relevant Airworthiness Standards in the United States?

In the United States, the airworthiness standards for type certification of transport category airplanes are contained in Title 14, Code of Federal Regulations (CFR) part 25. Manufacturers of transport category airplanes must show that each airplane they produce of a different type design complies with the appropriate part 25 standards. These standards apply to:

- Airplanes manufactured within the U.S. for use by U.S.-registered operators, and
- Airplanes manufactured in other countries and imported to the U.S. under a bilateral airworthiness agreement.

What Are the Relevant Airworthiness Standards in Europe?

In Europe, the airworthiness standards for type certification of transport category airplanes are contained in Joint Aviation Requirements (JAR)–25, which are based on part 25. These were developed by the Joint Aviation Authorities (JAA) of Europe to provide a common set of airworthiness standards within the European aviation community. Twenty-three European countries accept airplanes type certificated to the JAR–25 standards, including airplanes manufactured in the U.S. that are type certificated to JAR–25 standards for export to Europe.

What Is ''Harmonization'' and How Did It Start?

Although part 25 and JAR–25 are very similar, they are not identical in every respect. When airplanes are type certificated to both sets of standards, the differences between part 25 and JAR–25 can result in substantial added costs to manufacturers and operators. These additional costs, however, often do not bring about an increase in safety. In many cases, part 25 and JAR–25 may contain different requirements to accomplish the same safety intent. Consequently, manufacturers are usually burdened with meeting the requirements of both sets of standards, although the level of safety is not increased correspondingly.

Recognizing that a common set of standards would not only benefit the aviation industry economically, but also

maintain the necessary high level of safety, the FAA and the JAA began an effort in 1988 to ''harmonize'' their respective aviation standards. The goal of the harmonization effort is to ensure that:

- Where possible, standards do not require domestic and foreign parties to manufacture or operate to different standards for each country involved; and
- The standards adopted are mutually acceptable to the FAA and the foreign aviation authorities.

The FAA and JAA have identified a number of significant regulatory differences (SRD) between the words of part 25 and JAR–25. Both the FAA and the JAA consider ''harmonization'' of the two sets of standards a high priority.

What Is ARAC and What Role Does It Play in Harmonization?

After initiating the first steps towards harmonization, the FAA and JAA soon realized that traditional methods of rulemaking and accommodating different administrative procedures was neither sufficient nor adequate to make appreciable progress towards fulfilling the goal of harmonization. The FAA then identified the Aviation Rulemaking Advisory Committee (ARAC) as an ideal vehicle for assisting in resolving harmonization issues, and, in 1992, the FAA tasked ARAC to undertake the entire harmonization effort.

The FAA had formally established ARAC in 1991 (56 FR 2190, January 22, 1991), to provide advice and recommendations concerning the full range of the FAA's safety-related rulemaking activity. The FAA sought this advice to develop better rules in less overall time and using fewer FAA resources than previously needed. The committee provides the FAA firsthand information and insight from interested parties regarding potential new rules or revisions of existing rules.

There are 64 member organizations on the committee, representing a wide range of interests within the aviation community. Meetings of the committee are open to the public, except as authorized by section 10(d) of the Federal Advisory Committee Act.

The ARAC establishes working groups to develop recommendations for resolving specific airworthiness issues. Tasks assigned to working groups are published in the **Federal Register**. Although working group meetings are not generally open to the public, the FAA solicits participation in working groups from interested members of the public who possess knowledge or experience in the task areas. Working groups report directly to the ARAC, and the ARAC must accept a working group proposal before ARAC presents the proposal to the FAA as an advisory committee recommendation.

The activities of the ARAC will not, however, circumvent the public rulemaking procedures; nor is the FAA limited to the rule language ''recommended'' by ARAC. If the FAA accepts an ARAC recommendation, the agency proceeds with the normal public rulemaking procedures. Any ARAC participation in a rulemaking package is fully disclosed in the public docket.

What Is the Status of the Harmonization Effort Today?

Despite the work that ARAC has undertaken to address harmonization, there remain a large number of regulatory differences between part 25 and JAR–25. The current harmonization process is extremely costly and time-consuming for industry, the FAA, and the JAA. Industry has expressed a strong desire to conclude the harmonization program as quickly as possible to alleviate the drain on their resources and to finally establish one acceptable set of standards.

Recently, representatives of the aviation industry [including Aerospace Industries Association of America, Inc. (AIA), General Aviation Manufacturers Association (GAMA), and European Association of Aerospace Industries (AECMA)] proposed an accelerated process to reach harmonization.

What Is the ''Fast Track Harmonization Program''?

In light of a general agreement among the affected industries and authorities to expedite the harmonization program, the FAA and JAA in March 1999 agreed upon a method to achieve these goals. This method, which the FAA has titled ''The Fast Track Harmonization Program,'' is aimed at expediting the rulemaking process for harmonizing not only the 42 standards that are currently tasked to ARAC for harmonization, but approximately 80 additional standards for part 25 airplanes.

The FAA initiated the Fast Track program on November 26, 1999 (64 FR 66522). This program involves grouping all of the standards needing harmonization into three categories:

Category 1: Envelope

For these standards, parallel part 25 and JAR–25 standards would be compared, and harmonization would be reached by accepting the more stringent of the two standards. Thus, the more stringent requirement of one standard would be ''enveloped'' into the other standard. In some cases, it may be necessary to incorporate parts of both the part 25 and JAR standard to achieve the final, more stringent standard. (This may necessitate that each authority revises its current standard to incorporate more stringent provisions of the other.)

Category 2: Completed or Near Complete

For these standards, ARAC has reached, or has nearly reached, technical agreement or consensus on the new wording of the proposed harmonized standards.

Category 3: Harmonize

For these standards, ARAC is not near technical agreement on harmonization, and the parallel part 25 and JAR–25 standards cannot be ''enveloped'' (as described under Category 1) for reasons of safety or unacceptability. A standard developed under Category 3 would be mutually acceptable to the FAA and JAA, with a consistent means of compliance.

Further details on the Fast Track Program can be found in the tasking statement (64 FR 66522, November 26, 1999) and the first NPRM published under this program, Fire Protection Requirements for Powerplant Installations on Transport Category Airplanes (65 FR 36978, June 12, 2000).

Under this program, the FAA provides ARAC with an opportunity to review, discuss, and comment on the FAA's draft NPRM. In the case of this rulemaking, ARAC did not choose to review the draft NPRM prior to its publication.

Discussion of the Proposal

How Does This Proposed Regulation Relate to ''Fast Track''?

This proposed regulation results from the recommendations of ARAC submitted under the FAA's Fast Track Harmonization Program. In this NPRM, the FAA proposes to amend § 25.869, concerning fire protection of electrical systems on transport category airplanes. This project has been identified as a Category 1 project under the Fast Track program.

What Is the Underlying Safety Issue Addressed by the Current Standards?

Section 25.869(a) of 14 CFR, and the parallel European standard JAR–25.869(a), address the design standards for protecting the components of electrical systems from fire. The standards provide specific standards that must be met, depending on the location of the components and the type of power cables.

What Are the Current 14 CFR and JAR Standards?

The current text of 14 CFR 25.869(a) (amendment 25–72, 55 FR 29784, July 20, 1990) is:

(a) Electrical system components:

(1) Components of the electrical system must meet the applicable fire and smoke protection requirements of §§ 25.831(c) and 25.863.

(2) Electrical cables, terminals, and equipment in designated fire zones, that are used during emergency procedures, must be at least fire resistant.

(3) Main power cables (including generator cables) in the fuselage must be designed to allow a reasonable degree of deformation and stretching without failure and must be—

(i) Isolated from flammable fluid lines; or

(ii) Shrouded by means of electrically insulated, flexible conduit, or equivalent, which is in addition to the normal cable insulation.

(4) Insulation on electrical wire and electrical cable installed in any area of the fuselage must be self-extinguishing when tested in accordance with the applicable portions of part I, appendix F of this part.

The current text of JAR–25.869(a) (Change 14, Orange Paper 96/1) is:

(a) Electrical system components:

(1) Components of the electrical system must meet the applicable fire and smoke protection requirements of JAR 25.831(c) and JAR 25.863. (See ACJ 25.869 (a)(1).)

(2) Electrical cables, terminals, and equipment in designated fire zones, that are used during emergency procedures, must be at least fire resistant.

(3) Main power cables (including generator cables) in the fuselage must be designed to allow a reasonable degree of deformation and stretching without failure and must be—

(i) Isolated from flammable fluid lines; or

(ii) Shrouded by means of electrically insulated, flexible conduit, or equivalent, which is in addition to the normal cable insulation.

(4) Insulation on electrical wire and electrical cable installed in any area of the aeroplane must be self-extinguishing when tested in accordance with the applicable portions of Part I, Appendix F.

What Are the Differences in the Standards and What Do Those Differences Result In?

The current text of § 25.869(a)(4) states that insulation on electrical wire and cables installed in any part of the *fuselage* must be self-extinguishing. The parallel JAR–25.869(a)(4) states that insulation on electrical wire and cables installed in any part of the *airplane* must be self-extinguishing. Thus, the JAR is considered the more stringent of the standards because it requires that the self-extinguishment standard be applied to electrical systems installed throughout the airplane (including engines), not just in the fuselage.

The technical need and accepted industry practice is that all wiring installed in the airframe and engines (i.e., not just the wiring in the fuselage), is self-extinguishing.

What, if Any, Are the Differences in the Means of Compliance?

To meet the JAR standards, and ensure that their airplanes are certificated to operate in Europe, U.S. manufacturers have designed the means for protecting electrical system components in accordance with the JAR requirements. Doing so, meets and surpasses the level of safety currently required by § 25.869(a) of 14 CFR.

As for the means of compliance, the JAA has issued specific advisory material related to a means of complying with 25.869(a)(1). This material is found in Advisory Circular Joint (ACJ) 25.869, ''Electrical System Fire and Smoke Protection (Interpretative Material and Acceptable Means of Compliance) [See JAR 25.869].'' The document provides the following guidance:

These requirements, and those of JAR 25.863 applicable to electrical equipment, may be satisfied by the following:

1. Electrical components in regions immediately behind firewalls and in engine pod attachment structures should be of such materials and at such a distance from the firewall that they will not suffer damage that could hazard the aeroplane if the surface of the firewall adjacent to the fire is heated to 1100 °C for 15 minutes.

2. Electrical equipment should be so constructed and/or installed that in the event of failure, no hazardous quantities of toxic or noxious (e.g. smoke) products will be distributed in the crew or passenger compartments.

3. Electrical equipment, which may come into contact with flammable vapours should be so designed and installed as to minimise the risk of the vapours exploding under both normal and fault conditions. This can be satisfied by meeting the Explosion Proofness Standards of draft ISO document TC20/SC5/N.43, dated 1974.

The FAA has no advisory material related to the current standards.

What Is the Proposed Action?

The FAA proposes to revise § 25.869(a) to adopt the more stringent language in the parallel JAR 25.869(a). This proposed requirement is in line with current industry practices and in concert with the FAA's objectives for the Fast Track Harmonization Program.

How Does This Proposed Standard Address the Underlying Safety Issue?

The proposed action would continue to address the safety issue by ensuring the fire protection of electrical system components on transport category airplanes.

What Is the Effect of the Proposed Standard Relative to the Current Regulations?

The proposed design requirements of revised § 25.869(a) would be expanded to apply not only to electrical system components in the fuselage, but throughout the airplane (including its engines as well). In effect, the proposed standard would maintain the current level of safety because U.S. manufacturers are already complying with it.

What Is the Effect of the Proposed Standard Relative to Current Industry Practice?

The effect of the proposed standard on industry practices would be minimal. In current practice, U.S. manufacturers are required to comply with the more stringent JAR requirements if they plan to sell their airplanes overseas. Because the proposed standard is currently being followed, the same level of safety will be maintained.

What Other Options Have Been Considered and Why Were They Not Selected?

One option considered was for the JAA to adopt unilaterally the standards of 14 CFR part 25. However, because § 25.869(a) is ''less stringent'' than the JAR, this could potentially mean adopting a lower level of safety. Additionally, it would not meet the objectives of the Fast Track Harmonization Program to harmonize the requirements of part 25 and the parallel requirements of JAR–25, while maintaining at least the same level of safety as in the current regulations.

Who Would Be Affected by the Proposed Change?

The proposed revised standard would affect U.S. manufacturers of transport category airplanes and, possibly, manufacturers of electrical systems installed on those airplanes. However, the FAA anticipates that the impact to the affected entities would be minimal because, in most cases, manufacturers are already complying with the more stringent standards as a means of obtaining joint (FAA and JAA) certification of their airplanes.

Is Existing FAA Advisory Material Adequate?

There is no current FAA advisory material related to the proposed standard. However, the FAA has developed a proposed Advisory Circular

(AC) 25.869–1X, ''Electric System Fire and Smoke Protection.'' It contains guidance on this subject, and includes, with some modification, the material currently in the JAA's ACJ 25.869, referred to previously. The availability of the proposed AC is announced elsewhere in this **Federal Register**.

What Regulatory Analyses and Assessments Has the FAA Conducted?

Regulatory Evaluation Summary

Proposed 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 requires agencies to analyze the economic effect of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. section 2531–2533) 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 also requires the consideration of international standards and, where appropriate, that they be the basis of U.S. standards. And fourth, the Unfunded Mandates Reform Act of 1995 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).

The FAA has determined that this proposal has no substantial costs, and that it is not ''a significant regulatory action'' as defined in Executive Order 12866, nor ''significant'' as defined in DOT's Regulatory Policies and Procedures. Further, this proposed rule would not have a significant economic impact on a substantial number of small entities, would reduce barriers to international trade, and would not impose an Unfunded Mandate on state, local, or tribal governments, or on the private sector.

The DOT Order 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the proposed rule does not warrant a full evaluation, a statement to that effect and the basis for it is included in the proposed regulation. Accordingly, the FAA has determined that the expected impact of this proposed rule is so minimal that the proposed rule does not warrant a full evaluation. We provide the basis for this determination as follows:

Currently, airplane manufacturers must satisfy both part 25 and the European JAR–25 standards to certificate transport category aircraft in both the United States and Europe. Meeting two sets of certification requirements raises the cost of developing a new transport category airplane often with no increase in safety. In the interest of fostering international trade, lowering the cost of aircraft development, and making the certification process more efficient, the FAA, JAA, and aircraft manufacturers have been working to create, to the maximum possible extent, a single set of certification requirements accepted in both the United States and Europe. As explained in detail previously, these efforts are referred to as ''harmonization.''

In this NPRM, the FAA proposes to amend its regulations concerning airworthiness standards for transport category airplanes, as regards fire protection of airplane systems.

U.S. manufacturers of transport category airplanes already comply to a large extent with the requirements of JAR 25.869(a) because it is substantially identical to § 25.869(a). Of the two minor differences between the rules, one is that the JAA rule specifically applies to the *airplane,* while the FAA rule specifically applies to the *fuselage.* Because it is the ongoing common practice of U.S. manufacturers to use the same wiring that is specified in terms of materials and installation by both § 25.869(a) and JAR 25.869(a) throughout the entire airplane, and not only in the fuselage, the first difference would have no economic impact on U.S. manufacturers.

The second minor difference is that advisory material (ACJ 25.869), which is specifically referenced in JAR 25.869(a), has no FAA counterpart. This harmonization action would include the adoption, with modification, of this JAA advisory material into the body of FAA advisory material. In their report, the ARAC Working Group set forth the text of the proposed advisory material. Toward this evaluation, the group provided the information that this new advice would be so sufficiently in line with current industry practices that, in following it, U.S. manufacturers would encounter no practical change in the procedures by which they already comply with the requirements of § 25.869(a).

Finally, because this proposed new material is advisory and not regulatory, no cost or benefit resulting from it could be considered the economic impact of a proposed regulation.

The FAA expects that this proposed rule would result in benefits in the form of cost savings received by affected manufacturers because they would be able to effect compliance with both FAA and JAA requirements in a simpler and more direct fashion.

Compliance with one of these harmonized rules, FAA or JAA, would mean compliance with the other. The FAA has not attempted to quantify the benefits from cost savings that may accrue because of this proposed rule beyond noting that, while any such savings are expected to be minimal, they are part of a potentially large savings from the harmonization program. The FAA also expects that the existing level of safety will be maintained.

Because the effect of this proposed regulatory change would be to codify ongoing common manufacturing practice, no consequent substantive change—either in practice or in the cost of compliance—would result. Thus, the FAA expects that any additional cost associated with compliance with this proposal would be negligible.

The FAA concludes that, because there is agreement among potentially affected airplane manufacturers that the economic impact of this proposal would be at most minimal, further analysis is not required. The FAA requests that those who believe this action would result in a cost increase provide to the Docket their basis for such a belief.

Initial Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980, 50 U.S.C. 601–612, as amended, establishes ''as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.'' To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant impact on a substantial number of small entities. If the determination is that the rule will, the Agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final 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 considers that this proposed rule would not have a significant impact on a substantial number of small entities for two reasons:

First, the net effect of the proposed rule is minimum regulatory cost relief. The proposed rule would require that new transport category aircraft manufacturers meet just one certification requirement, rather than different standards for the United States and Europe. Airplane manufacturers already meet or expect to meet this standard as well as the existing 14 CFR part 25 requirement.

Second, all U.S. transport-aircraft category manufacturers exceed the Small Business Administration small-entity criteria of 1,500 employees for aircraft manufacturers. The current U.S. part 25 airplane manufacturers include: Boeing, Cessna Aircraft, Gulfstream Aerospace, Learjet (owned by Bombardier), Lockheed Martin, McDonnell Douglas (a wholly-owned subsidiary of The Boeing Company), Raytheon Aircraft, and Sabreliner Corporation.

Given that this proposed rule is minimally cost-relieving and that there are no small entity manufacturers of part 25 airplanes, the FAA certifies that this proposed rule would not have a significant impact on a substantial number of small entities.

Initial International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or 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. In addition, consistent with the Administration's belief in the general superiority and desirability of free trade, it is the policy of the Administration to remove or diminish to the extent feasible, barriers to international trade, including both barriers affecting the export of American goods and services to foreign countries and barriers affecting the import of foreign goods and services into the United States.

In accordance with the above statute and policy, the FAA has assessed the potential effect of the proposed rule and has determined that it supports the Administration's free trade policy because this rule would use European international standards as the basis for U.S. standards.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), codified in 2 U.S.C. 1532–1538, enacted as Public Law 104–4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation) in any one year.

This proposed rule does not contain a Federal intergovernmental or private sector mandate that exceeds $100 million in any year; therefore, the requirements of the Act do not apply.

What Other Assessments Has the FAA Conducted?

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule and the principles and criteria of Executive Order 13132, Federalism. We have 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. Therefore, we have determined that this NPRM would not have federalism implications.

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 there are no new information collection requirements associated with this proposed rule.

International Compatibility

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

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental assessment or environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), this rulemaking qualifies for a categorical exclusion.

Energy Impact

The energy impact of the proposed rule has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) and Public Law 94–163, as amended (43 U.S.C. 6362), and FAA Order 1053.1. It has been determined that it is not a major regulatory action under the provisions of the EPCA.

Regulations Affecting Intrastate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in Title 14 of the CFR in a manner affecting intrastate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this proposed rule would apply to the certification of future designs of transport category airplanes and their subsequent operation, it could, if adopted, affect intrastate aviation in Alaska. The FAA therefore specifically requests comments on whether there is justification for applying the proposed rule differently to intrastate operations in Alaska.

Plain Language

In response to the June 1, 1998, Presidential memorandum regarding the issue of plain language, the FAA re-examined the writing style currently used in the development of regulations. The memorandum requires Federal agencies to communicate clearly with the public. We are interested in your comments on whether the style of this document is clear, and in any other suggestions you might have to improve the clarity of FAA communications that affect you. You can get more information about the Presidential memorandum and the plain language initiative at http://www.plainlanguage.gov.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements, Safety, Transportation.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend part 25 of Title 14, Code of Federal Regulations, as follows:

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. The authority citation for Part 25 continues to read as follows:

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

2. Amend section 25.869 by revising paragraph (a)(4) to read as follows:

§ 25.869 Fire protection: systems.

(a) * * *

(4) Insulation on electrical wire and electrical cable installed in any area of the airplane must be self-extinguishing when tested in accordance with the applicable portions of part I, appendix F of this part.

* * * * *

Issued in Renton, Washington, on May 3, 2001.

Lirio Liu Nelson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01–12100 Filed 5–14–01; 8:45 am]

BILLING CODE 4910–13–P

Federal Register

Tuesday,
March 16, 2004

Part IV

Department of Transportation

Federal Aviation Administration

14 CFR Part 25

Electrical Equipment and Installations, Storage Battery Installation; Electronic Equipment; and Fire Protection of Electrical System Components on Transport Category Airplanes; Final Rule

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2001–9634, FAA–2001–9633, FAA–2001–9638, FAA–2001–9637; Amendment No. 25–113]

RIN 2120–AI21

Electrical Equipment and Installations, Storage Battery Installation; Electronic Equipment; and Fire Protection of Electrical System Components on Transport Category Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA amends the regulations governing airworthiness standards for transport category airplanes concerning: electrical equipment; nickel cadmium battery installation and storage; electrical cables; design and installation of electronic equipment; and fire protection of electrical system components. Adoption of these amendments eliminates significant regulatory differences between the airworthiness standards of the U.S. and the Joint Aviation Requirements of Europe, without affecting current industry design practices.

DATES: This amendment becomes effective April 15, 2004.

FOR FURTHER INFORMATION CONTACT: Stephen Slotte, FAA, Airplane and Flight Crew Interface Branch, ANM–111, Federal Aviation Administration, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, WA 98055–4056; telephone 425–227–2315; facsimile 425–227–1320, e-mail *steve.slotte@faa.gov.*

SUPPLEMENTARY INFORMATION:

How Can I Obtain a Copy of This Final Rule?

You can get an electronic copy 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 Government Printing Office's web page at *http://www.access.gpo.gov/su_docs/aces/aces140.html.*

You can also request a copy from the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW., Washington, DC 20591 [(202) 267–9680]. Be 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 our jurisdiction. If you are a small entity and you have a question regarding this document you may contact your local FAA official or the person listed under **FOR FURTHER INFORMATION CONTACT**. You can find out more about SBREFA on the Internet at *http://www.faa.gov/avr/arm/sbrefa.htm*, or by e-mailing us at *9–AWA–SBREFA@faa.gov.*

Background

This final rule responds to recommendations of the Aviation Rulemaking Advisory Committee (ARAC) submitted under the FAA's Fast Track Harmonization Program. It amends six sections of the regulations governing airworthiness standards for transport category airplanes concerning: electrical installation, nickel cadmium battery installation and storage; electrical cables; design and installation of electronic equipment; and fire protection of electrical system components. The FAA proposed these changes in four notices of proposed rulemaking (NPRM). The notices and the affected sections are listed in the table below.

Change No.	14 CFR section No.	Section title	Notice No.	Federal Register publication/publication date
1	§ 25.1353(a)	Electrical equipment and installations	01–04	66 FR 27582, 05/17/2001.
2	§ 25.1353(c)(5)	Storage batteries		
3	§ 25.1353(c)(6)	Storage batteries		
4	§ 25.1353(d)	Electrical cables and cable installations	01–03	66 FR 26942, 05/15/2001.
5	§ 25.1431(d)	Electronic equipment	01–07	66 FR 26956, 05/15/2001.
6	§ 25.869(a)(4)	Fire protection systems	01–06	66 FR 26964, 05/15/2001.

In these notices you will find a history of the problems and discussions of the safety considerations supporting our course of action. You also will find a discussion of the current requirements and why they do not adequately address the problem. We also refer to the recommendations of the ARAC we relied on in developing the proposed rule. The NPRMs also discuss each alternative that we considered and the reasons for rejecting the ones we did not adopt.

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.

History

In the United States, Title 14, Code of Federal Regulations (CFR) part 25 contains the airworthiness standards for type certification of transport category airplanes. Manufacturers of transport category airplanes must show that each airplane they produce of a different type design complies with the appropriate part 25 standards.

In Europe, Joint Aviation Requirements (JAR)–25 contains the airworthiness standards for type certification of transport category airplanes. The Joint Aviation Authorities (JAA) of Europe developed these standards, which are based on part 25, to provide a common set of airworthiness standards within the European aviation community. Thirty-seven European countries accept airplanes type certificated to the JAR–25 standards, including airplanes manufactured in the U.S. that are type certificated to JAR–25 standards for export to Europe.

Although part 25 and JAR–25 are similar, they are not identical in every respect. When airplanes are type certificated to both sets of standards, the differences between part 25 and JAR–25

can result in substantial added costs to manufacturers and operators. These added costs, however, often do not bring about an increase in safety.

Recognizing that a common set of standards would not only benefit the aviation industry economically but also preserve the necessary high-level of safety, the FAA and the JAA began an effort in 1988 to ''harmonize'' their respective aviation standards.

After beginning the first steps towards harmonization, the FAA and JAA soon realized that traditional methods of rulemaking and accommodating different administrative procedures was neither sufficient nor adequate to make noticeable progress towards fulfilling the harmonization goal. The FAA identified the ARAC as an ideal vehicle for helping to resolve harmonization issues, and in 1992, the FAA tasked ARAC to undertake the entire harmonization effort.

Despite the work that ARAC has undertaken to address harmonization, there remain many regulatory differences between part 25 and JAR–25. The current harmonization process is costly and time-consuming for industry, the FAA, and the JAA. Industry has expressed a strong desire to finish the harmonization program as quickly as possible to alleviate the drain on their resources and finally to establish one acceptable set of standards.

Recently, representatives of the FAA and JAA proposed an accelerated process to reach harmonization, the ''Fast Track Harmonization Program.'' The FAA initiated the Fast Track Harmonization Program on November 26, 1999 (64 FR 66522). This rulemaking has been identified as a ''fast track'' project.

Further details on ARAC, and its role in the harmonization rulemaking activity, and the Fast Track Harmonization Program can be found in the tasking statement (64 FR 66522, November 26, 1999) and the first NPRM published under this program, Fire Protection Requirements for Powerplant Installations on Transport Category Airplanes (65 FR 36978, June 12, 2000).

Related Activity

The new European Aviation Safety Authority (EASA) was established and formally came into being on September 28, 2003. The JAA worked with the European Commission (EC) to develop a plan to ensure a smooth transition from JAA to the EASA. As part of the transition, the EASA will absorb all functions and activities of the JAA, including its efforts to harmonize JAA regulations with those of the U.S. This rule is a result of the FAA and JAA harmonization rulemaking activities. It adopts the more stringent requirements of the JAR standards. These JAR standards have already been incorporated into the EASA ''Certification Specifications for Large Aeroplanes'' CS–25, in similar if not identical language. The EASA CS–25 became effective on October 17, 2003.

Discussion of the Comments

Electrical Installation, Nickel Cadmium Battery Installation, and Nickel Cadmium Battery Storage, RIN 2120–AH27

On May 17, 2001, the FAA published a notice of proposed rulemaking (Notice No. 01–04, 66 FR 27582) entitled, ''Electrical Installation, Nickel Cadmium Battery Installation, and Nickel Cadmium Battery Storage.'' In the NPRM, the FAA proposed to amend three sections of 14 CFR part 25 regarding airworthiness standards for transport category airplanes concerning electrical equipment and installations to harmonize the standards with those of the associated JAR–25. In the NPRM, the proposed title of § 25.1353 is incorrect. This final rule corrects the title of § 25.1353 to read ''Electrical equipment and installations.'' For electrical equipment installations, the FAA proposed to add text from the associated JAR to harmonize the requirements, and to clarify the intent of this regulation. For nickel cadmium batteries, the FAA proposed to expand the applicability of the regulation to all nickel cadmium battery sizes, regardless of their capabilities. In addition, the FAA proposed to adopt the associated JAR Advisory Circular Joint (ACJ) material for both electrical equipment and nickel cadmium battery installations.

General Comment

The FAA received four comments in response to the proposed rule. Two of the four commenters support the proposed changes. The other two commenters disagreed with the cost estimates in the proposal, as discussed below.

Comment: The third and fourth commenters submitted their comments through the Air Transport Association of America (ATA). The ATA provided comments that ''indicate the cost estimates in the proposal are flawed because they do not address the cost of compliance when installing new equipment in existing airplanes.''

FAA Reply: The FAA does not concur. The cost and technical impacts on existing aircraft due to harmonization of these rules are expected to be minimal because of the following:

1. These harmonized rules will, in general, not be applicable to existing airplanes or modifications to existing airplanes that were certified to earlier amendment levels as defined on the Type Certificate Data sheet. An exception may be new derivative airplane models or modifications to existing models that are deemed significant enough to require application of later amendment levels per 14 CFR 21.101.

2. It is anticipated that any modifications or retrofit changes that require a showing of compliance to the harmonized rules for nickel cadmium batteries §§ 25.1353(c)(5) and (c)(6) will, in general, not require compliance to later amendments.

3. The requirements for temperature sensing, monitoring, and warning, in general apply to batteries that have high enough energy sources to be a hazard, and are typically main airplane batteries or APU start type batteries. Main airplane batteries (which have engine ignition as a stand-by load) or APU start batteries already are required to have this sensing and monitoring functionality.

4. This regulation will not be applicable to flashlights or emergency lighting equipment (dry cell type batteries as they generally have low energy-charging type systems (trickle charge)); unless there were to be new designs or new technologies that warrant this type of battery monitoring and sensing due to potentially hazardous effects.

5. Harmonization of § 25.1353(a) with JAR 25.1353(a) provides consistency with existing rules, § 25.1431, and with the harmonized § 25.1309. The intent of both rules is the same in that the airplane is required to be designed with electrical interference effects that have no unsafe effects on the airplane, systems, or occupants. This rule provides further definition in terms of the level of safety or probability of failure that is required. The main difference between § 25.1353(a) and JAR 25.1353(a) is the use of the term ''extremely remote,'' which is defined as follows:

Extremely Remote Failure Condition: a failure condition that is not anticipated to occur to each airplane during its total life, but which may occur a few times when considering the total operational life of all airplanes of the type. [**Note:** The term ''extremely remote'' has been used previously within 14 CFR part 25 to describe a condition so remote that it is not anticipated to occur in service on any transport category airplane (*i.e.*, ''extremely improbable''). However, for the purposes of this regulation, the term ''extremely remote'' will have the meaning specified above.]

This is further supported by the Advisory Circular Joint (ACJ) 25.1353(a), ''Acceptable Means of Compliance and Interpretation,'' Section Two of the Joint Aviation Requirements (JAR–25).

The FAA has adopted the JAR ACJ material as an acceptable means of showing compliance with the revision to § 25.1353(a) and has developed an Advisory Circular (AC). The FAA will publish a Notice of Availability in the **Federal Register** after the AC is issued.

Changes: No changes were made as a result of this comment.

FAA Disposition of Comments: The FAA adopts the changes as proposed in the NPRM, Notice No. 01–04.

Electrical Cables, RIN 2120-AH29

On May 15, 2001, the FAA published a notice of proposed rulemaking (Notice No. 01–03, 66 FR 26942) entitled, ''Electrical Cables.'' In the NPRM, the FAA proposed harmonizing the standards by revising the regulation to adopt the text of the associated JAR–25. The proposed revision would specify a design action to be taken, and remove the possibility that a designer may not consider a critical installation design condition.

General Comment

The FAA received one comment to both Notice No. 01–03 and Notice No. 01–07. The commenter fully supports the proposal.

Comment: The commenter fully supports the adoption of these amendments to reduce the differences between part 25 and JAR–25. Further, the commenter states that the fruits of the ARAC's considerable efforts should enable the FAA to complete this rulemaking quickly.

Changes: No changes were made as a result of this comment.

FAA Disposition of Comment: The FAA adopts the changes as proposed in the NPRM, Notice No. 01–03.

Design and Installation of Electronic Equipment on Transport Category Airplanes, RIN 2120-AH28

On May 15, 2001, the FAA published a notice of proposed rulemaking (Notice No. 01–07, 66 FR 26956) entitled, ''Design and Installation of Electronic Equipment on Transport Category Airplanes.'' In the NPRM, the FAA proposed to revise § 25.1431 to add a new paragraph (d) that would be parallel to JAR–25.1431(d). The proposal would provide one location in the regulations that explicitly addresses requirements related to electrical power supply transients, clarify the objective of the other related regulations in part 25, and harmonize 14 CFR part 25 with the associated JAR–25.

General Comment

The FAA received one comment to both Notice No. 01–03 and Notice No. 01–07. The commenter fully supports the proposal.

Comment: See Comment under ''Electrical Cables'' above.

Changes: No changes to the rule as proposed are necessary.

FAA Disposition of Comment: The FAA adopts the changes as proposed in the NPRM, Notice No. 01–07.

Fire Protection of Electrical System Components on Transport Category Airplanes, RIN 2120–AG92.

On May 15, 2001, the FAA published a notice of proposed rulemaking (Notice No. 01–06, 66 FR 26964) entitled, ''Fire Protection of Electrical System Components on Transport Category Airplanes.'' In the NPRM, the FAA proposed to revise § 25.869(a), concerning the protection of electrical system components, to adopt the more stringent language in the parallel JAR–25.

General Comment

The FAA received three comments in response to the proposed rule. Two of the commenters agree with the proposal and recommend its adoption. The third commenter suggested a change to the applicability of the rule, as discussed below.

Comment: The commenter states, ''Regulatory changes should apply to airplanes or electrical components manufactured after the date the CFR is changed. The CFR change should not be retroactive to airplanes manufactured before this new regulation is enacted.''

FAA Reply: The harmonized § 25.869(a) and JAR 25.869(a) will be incorporated into later revisions of 14 CFR part 25 and are not retroactive. Therefore, these harmonized rules will, in general, not be applicable to existing airplanes or electrical components that were certified to earlier amendment levels as defined on the Type Certificate Data sheet for the airplane models in question. An exception may be new derivative airplane models or modifications to existing models that are deemed significant enough to require application of later amendment levels per 14 CFR 21.101.

There is currently no FAA advisory material related to the standard. However, the FAA has developed AC 25.869–1X, ''Electrical System Fire and Smoke Protection.'' It contains guidance on this subject and includes, with some modification, the material currently in the JAA's ACJ 25.869. The FAA will publish a Notice of Availability in the **Federal Register** after the AC is issued.

Changes: No changes were made as a result of this comment.

FAA Disposition of Comment: The FAA adopts the changes as proposed in the NPRM, Notice No. 01–06.

What Regulatory Analyses and Assessments Has the FAA Conducted?

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

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs each Federal agency to 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 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. section 2531–2533) 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 also 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 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).

In conducting these analyses, the FAA has determined that this final rule:

1. Has benefits that do justify its costs, is not a ''significant regulatory action'' as defined in the Executive Order, and is not ''significant'' as defined in DOT's Regulatory Policies and Procedures;

2. will not have a significant economic impact on a substantial number of small entities;

3. reduces barriers to international trade; and,

4. imposes no unfunded mandates on State, local, or tribal governments, or the private sector.

The (DOT) Order 2100.5, ''Regulatory Policies and Procedures,'' prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the rule does not warrant a full evaluation, a statement to that effect and the basis

for it is included in the regulation. We provide the basis for this minimal impact determination below. We received no comments that conflicted with the economic assessment of minimal impact published in the notices of proposed rulemaking for this action. Given the reasons presented below, we have determined that the expected impact of this rule is so minimal that the final rule does not warrant a full evaluation.

Currently, airplane manufacturers must satisfy both the 14 CFR and the European JAR certification standards to market transport category airplanes in both the United States and Europe. Meeting two sets of certification requirements raises the cost of developing new transport category airplanes often with no increase in safety. In the interest of fostering international trade, lowering the cost of airplane development, and making the certification process more efficient, the FAA, JAA, and airplane manufacturers have been working to create, to the maximum possible extent, a single set of certification requirements accepted in both the United States and Europe. As discussed previously, these efforts are referred to as harmonization. This final rule results from the FAA's acceptance of ARAC harmonization working group recommendations. Members of the ARAC working groups agreed that the requirements of this rule will not impose additional costs to U.S. manufacturers of part 25 airplanes.

Specifically, this final rule requires:

1. Revising §§ 25.1353(a), (c)(5), and (c)(6), and 25.869(a) to adopt the ''more stringent'' requirements currently in those same sections of JAR–25;

2. adding § 25.1353(d) to adopt JAR 25.1353(d) in its entirety; and,

3. adding a new § 25.1431(d) to incorporate the ''more stringent'' requirement of paragraph 25.1431(d) of the JAR.

We consider that this rule will neither reduce nor increase the requirements beyond those that are already met by U.S. manufacturers to satisfy European airworthiness standards.

As this rule neither increases nor decreases certification requirements beyond those already in existence, we have determined there will be no cost associated with this rule to part 25 manufacturers. We have not tried to quantify the benefits of this amendment beyond identifying the expected harmonization benefit. This amendment eliminates an identified significant regulatory difference (SRD) between part 25 and JAR–25 wording. Eliminating the SRD will provide for a more consistent interpretation of the rules and, thus, is an element of the potentially large cost savings of harmonization.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) directs the FAA to fit regulatory requirements to the sale of the business, organizations, and governmental jurisdictions subject to regulation. We are required to determine whether a proposed or final action will have a ''significant economic impact on a substantial number of small entities'' as defined in the Act.

If we find the action will have a significant impact, we must do a ''regulatory flexibility analysis.'' If, however, we find the action will not have a significant economic impact on a substantial number of small entities, we are not required to do the analysis. In this case, the Act requires that we include a statement that provides the factual basis for our determination.

We have determined that this amendment will not have a significant economic impact on a substantial number of small entities for two reasons:

First, the net effect of the final rule is regulatory cost relief. The amendment requires that new transport category airplane manufacturers meet just the ''more stringent'' European certification requirement, rather than both the United States and European standards. Airplane manufacturers already meet or expect to meet this standard as well as the existing part 25 requirements.

Second, all United States manufacturers of transport category airplanes exceed the Small Business Administration small-entity criteria of 1,500 employees for airplane manufacturers. Those U.S. manufacturers include: The Boeing Company, Cessna Aircraft Company, Gulfstream Aerospace, Learjet (owned by Bombardier Aerospace), Lockheed Martin Corporation, McDonnell Douglas (a wholly owned subsidiary of The Boeing Company), Raytheon Aircraft, and Sabreliner Corporation.

The FAA received no comments that differed with the assessment given in this section. Since this final rule is cost relieving and there are no small entity manufacturers of part 25 airplanes, the FAA Administrator certifies that this final rule will not have a significant economic impact on a substantial number of small entities.

Trade Impact Assessment

The Trade Agreement Act of 1979 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.

This rule is consistent with the Trade Agreement Act as the European standards are the basis for these U.S. regulations.

Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (the Act), is intended, among other things, to curb the practice of imposing unfounded Federal mandates on State, local, and tribal governments. Title II of the Act 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) in any one year 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.''

This final rule does not contain such a mandate. The requirements of Title II of the Act, therefore, do not apply.

What Other Assessments Has the FAA Conducted?

Paperwork Reduction Act

Under the provisions of the Paperwork Reduction Act of 1995, there are no current or new requirements for information collection associated with this final rule.

International Compatibility

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

Executive Order 13132, Federalism

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

Regulations Affecting Intrastate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in Title 14 of the CFR in a manner affecting intrastate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this final rule applies to the certification of future designs of transport category airplanes and their subsequent operation, it could affect intrastate aviation in Alaska. Because no comments were received regarding this regulation affecting intrastate aviation in Alaska, we will apply the rule in the same way that it is being applied nationally.

Plain Language

Executive Order 12866 (58 FR 51735, Oct. 4, 1993) requires each agency to write regulations that are simple and easy to understand. We invite your comments on how to make these regulations easier to understand, including answers to questions such as the following:

- Are the requirements in the regulations clearly stated?
- Do the regulations contain unnecessary technical language or jargon that interferes with their clarity?
- Would the regulations be easier to understand if they were divided into more (but shorter) sections?
- Is the description in the final rule preamble helpful in understanding the regulations?

Please send your comments to the address specified in the **FOR FURTHER INFORMATION CONTACT** section.

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), this final rule qualifies for a categorical exclusion.

Energy Impact

The FAA has assessed the energy impact of this final rule in accordance with the Energy Policy and Conservation Act (EPCA) and Public Law 94–163, as amended (43 U.S.C. 6362), and FAA Order 1053.1. We have determined that the final rule is not a major regulatory action under the provisions of the EPCA.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The Amendment

■ In consideration of the foregoing, the Federal Aviation Administration amends part 25 of Title 14, Code of Federal Regulations, as follows:

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

■ 1. The authority citation for part 25 continues to read as follows:

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

■ 2. Amend § 25.869 by revising paragraph (a)(4) to read as follows:

§ 25.869 Fire protection: systems.

(a) * * *

(4) Insulation on electrical wire and electrical cable installed in any area of the airplane must be self-extinguishing when tested in accordance with the applicable portions of part I, appendix F of this part.

* * * * *

■ 3. Amend § 25.1353 by revising paragraphs (a), (c)(5), and (c)(6), and by adding a new paragraph (d) to read as follows:

§ 25.1353 Electrical equipment and installations.

(a) Electrical equipment, controls, and wiring must be installed so that operations of any one unit or system of units will not adversely affect the simultaneous operation of any other electrical unit or system essential to the safe operation. Any electrical interference likely to be present in the airplane must not result in hazardous effects upon the airplane or its systems except under extremely remote conditions.

* * * * *

(c) * * *

(5) Each nickel cadmium battery installation must have provisions to prevent any hazardous effect on structure or essential systems that may be caused by the maximum amount of heat the battery can generate during a short circuit of the battery or of individual cells.

(6) Nickel cadmium battery installations must have—

(i) A system to control the charging rate of the battery automatically so as to prevent battery overheating; or

(ii) A battery temperature sensing and over-temperature warning system with a means for disconnecting the battery from its charging source in the event of an over-temperature condition; or

(iii) A battery failure sensing and warning system with a means for disconnecting the battery from its charging source in the event of battery failure.

(d) Electrical cables and cable installations must be designed and installed as follows:

(1) The electrical cables used must be compatible with the circuit protection devices required by § 25.1357 of this part, such that a fire or smoke hazard cannot be created under temporary or continuous fault conditions.

(2) Means of permanent identification must be provided for electrical cables, connectors and terminals.

(3) Electrical cables must be installed such that the risk of mechanical damage and/or damage caused by fluids, vapors, or sources of heat, is minimized.

■ 4. Amend § 25.1431 by adding a new paragraph (d) to read as follows:

§ 25.1431 Electronic equipment.

* * * * *

(d) Electronic equipment must be designed and installed such that it does not cause essential loads to become inoperative as a result of electrical power supply transients or transients from other causes.

Issued in Renton, Washington, on March 9, 2004.

Franklin Tiangsing,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04–5892 Filed 3–15–04; 8:45 am]

BILLING CODE 4910–13–P