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Part IV

Department of Transportation

Federal Aviation Administration

14 CFR Parts 27 and 29

Harmonization of Critical Parts Rotorcraft Regulations; Proposed Rule

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 27 and 29

[Docket No. 29311; Notice No. 98–10]

RIN 2120–AG60

Harmonization of Critical Parts Rotorcraft Regulations

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes changes to the type certification requirements for both normal and transport category rotorcraft. The changes would amend the airworthiness standards to define critical parts and to require a critical parts plan. The critical parts plan would establish procedures that would require the control of the design, substantiation, manufacture, maintenance, and modification of critical parts.

DATES: Comments must be received on or before November 23, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Chief Counsel, Attention: Rules Docket (AGC–200), Docket No. 29311; Room 915G, 800 Independence Avenue SW, Washington, DC 20591. Comments submitted must be marked Docket No. Comments may also be sent electronically to the following internet address: 9-nprm-cmts@faa.dot.gov. Comments may be examined in Room 915G weekdays between 8:30 a.m. and 5:00 p.m., except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Carroll Wright, Rotorcraft Directorate, Aircraft Certification Service, Regulations Group, FAA, Fort Worth, Texas 76193–0111, telephone number (817) 222–5120.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule 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 or notice number and be submitted in triplicate to the Rules Docket at the address specified under the caption **ADDRESSES.**

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

All comments received on or before the closing date will be considered before taking action on this proposal. Late-filed comments will be considered to the extent practicable. The proposals contained in this document may be changed in light of the comments received.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this document must include a preaddressed, stamped postcard on which the following statement is made: ''Comments to Docket No.'' The postcard will be date stamped and mailed to the commenter.

Availability of NPRM's

Using a modem and suitable communications software, an electronic copy of this document may be downloaded from the FAA regulations section of the Fedworld electronic bulletin board service (telephone: 703–321–3339), the Federal Register's electronic bulletin board service (telephone: 202–512–1661), or the FAA's Aviation Rulemaking Advisory Committee Bulletin Board service (telephone: 800–322–2722 or 202–267–5948).

Internet users may reach the FAA's web page at http://www.faa.gov/avr/arm/nprm/nprm.htm or the Federal Register's webpage at http://www.access.gpo.gov/su__docs/aces/aces140.html for access to recently published rulemaking documents.

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Office of Rulemaking, ARM–1, 800 Independence Avenue, SW, Washington, DC 20591, or by calling (202) 267–9680. Communications must identify the notice number of this NPRM.

Persons interested in being placed on a mailing list for future NPRM's should request from the above office a copy of Advisory Circular No. 11–2A, NPRM Distribution System, which describes the application procedure.

Background

The FAA has established an Aviation Rulemaking Advisory Committee (ARAC). The FAA assigns certain tasks to ARAC. The ARAC tasks working groups to make recommendations. The ARAC, in turn, makes recommendations to the FAA.

The ARAC first assigned the critical parts task to the JAR/FAR 27 and 29 Harmonization Working Group by announcement in the **Federal Register** (57 FR 58846, December 11, 1992). However, during the rulemaking process, it was decided that this issue could involve 14 CFR parts 21, ''Certification Procedures for Products and Parts''; and 43, ''Maintenance, Preventive Maintenance, Rebuilding, and Alteration''; and would require the efforts of a separate ARAC working group. Consequently, by another document in the **Federal Register** (60 FR 4219, January 20, 1995), the ARAC announced the establishment of the Critical Parts Working Group. The FAA tasked the ARAC to recommend to FAA new or revised requirements for a critical parts plan that would control the design, substantiation, manufacture, maintenance, and modification of critical parts. These airworthiness standards have been harmonized and will be proposed by the Joint Aviation Authorities (JAA).

Specifically, the task is as follows:

> Review Title 14 Code of Federal Regulations, parts 27 and 29, and supporting policy and guidance material for the purpose of determining the course of action to be taken for rulemaking and/or policy relative to the issue of identification of the critical parts for consideration under design, production and maintenance, according to a critical parts plan to be prepared by the manufacturer. Consider adding new §§ 27.602 and 29.602 to Title 14.

The working group included representatives from the major rotorcraft manufacturers (normal and transport) and representatives from Aerospace Industries Association of America, Inc. (AIA), Association Europeene des Constructeurs de Material Aerospatial (AECMA), Transport Canada Aviation, JAA, the FAA Rotorcraft Directorate, and other interested parties. This broad participation is consistent with FAA policy to involve all known interested parties as early as practicable in the rulemaking process.

The working group presented its findings to the ARAC, which recommended to the FAA that a critical parts section be added to the airworthiness standards for both 14 CFR parts 27 and 29 (parts 27 and 29).

The FAA has evaluated the ARAC recommendations and proposes the changes contained in this document.

General Discussion of the Proposals

The objective of identifying critical parts is to ensure that critical parts are controlled during design, substantiation, manufacture, and throughout their service life so that the risk of failure in

service is minimized by ensuring that the critical parts maintain their critical characteristics on which certification is based. Although manufacturers currently have various methods to control critical parts, this proposal would require that the control process be formalized and submitted as part of the type certification process. This proposal to address critical parts in the regulations would apply to parts 27 and 29. A critical part would be defined as a part, the failure of which could have a catastrophic effect upon the rotorcraft, and for which critical characteristics have been identified which must be controlled to ensure the required level of integrity. The use of the word ''could'' in §§ 27.602(a) and 29.602(a) of the rule means that this failure assessment should consider the effect of flight regime (i.e., forward flight, hover, etc.). The operational environment need not be considered. The term ''catastrophic'' means the inability to conduct an autorotation to a safe landing, without exceptional piloting skills, assuming a suitable landing surface.

Paperwork Reduction Act

The information collection associated with this proposed rule is currently covered under OMB control #2120–0018.

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 impact of regulatory changes on small entities. Third, the Office of Management and Budget directs agencies to assess the effects of regulatory changes on international trade. And 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). In conducting these analyses, the FAA has determined that this rule: (1) will generate benefits that justify its costs and is not a ''significant regulatory action'' as defined under section 3(f) of Executive Order 12866 and Department of Transportation's (DOT) policies and procedures (44 FR 11034, February 26, 1979). In addition, under the Regulatory Flexibility Determination, the FAA certifies that this proposal would not have a significant impact on a substantial number of small entities. Furthermore, this proposal will lessen restraints on international trade. Finally, the FAA has determined that the proposal would not impose a federal mandate on state, local, or tribal governments, or the private sector of $100 million per year. These analyses, available in the docket, are summarized below.

Cost/Benefit Analysis

The FAA estimates that any costs associated with the proposed rule would be negligible. Rotorcraft manufacturers already have many requirements (e.g., §§ 21.31, 21.33, 21.50, 21.139, 21.143, 27.1529, and 29.1529) to ensure the safety of the design manufacture, maintenance, inspection, and overhaul of rotorcraft parts. All manufacturers have some procedures in place to identify and control ''critical parts,'' which are called ''flight safety parts,'' ''critical parts,'' ''vital parts,'' or ''identifiable parts.'' This proposed rule would merely formalize these procedures into a Critical Parts Plan.

The Joint Aviation Authorities (JAA) has indicated that it will amend its Joint Aviation Requirements (JAR's) by adopting the requirements in proposed § 27.602 and 29.602 and incorporate the elements of the FAA's Advisory Circular (AC). The benefit of the proposed rule could result in both improved safety and cost savings from formalization and harmonization of procedures by rotorcraft manufacturers.

Initial Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes ''as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statues, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation.'' To achieve that principle the Act requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The Act 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 or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis (RFA) as described in the Act. 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 1980 act provides that the head of the agency may so certify and an RFA is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

This proposed rule formalizes existing requirements and current practices and would result in no more than negligible costs to rotorcraft manufacturers. Based on this review, the FAA determined that it would not have a significant economic impact on a substantial number of small entities. Accordingly, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Federal Aviation Administration certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

Consistent with the Administration's belief in the general superiority, desirability, and efficacy of free trade, it is the policy of the Administrator to remove or diminish, the extent feasible, barriers to international trade, including both barriers affecting the export of American goods and services to foreign countries and those affecting the import of foreign goods and services into the United States.

In accordance with that policy, the FAA is committed to develop as much as possible its aviation standards and practices in harmony with its trading partners. Significant cost savings can result from this, both to American companies doing business in foreign markets, and foreign companies doing business in the United States.

This rule is a direct action to respond to this policy by increasing the harmonization of the U.S. Federal Aviation Regulations with the European Joint Aviation Requirements. The result will be a positive step toward removing impediments to international trade.

Federalism Implications

The regulations proposed herein will not have substantial direct effects 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, in accordance with Executive Order 12612,

it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 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. Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected officers (or their designees) of State, local, and tribal governments on a proposed ''significant intergovernmental mandate.'' A ''significant intergovernmental mandate'' under the Act is any provision in a Federal agency regulation that will impose an enforceable duty upon State, local, and tribal governments, in the aggregate, of $100 million (adjusted annually for inflation) in any one year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency shall have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a meaningful and timely opportunity to provide input in the development of regulatory proposals.

The proposed rule does not contain any Federal intergovernmental or private sector mandate. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

List of Subjects in 14 CFR Parts 27 and 29

Air transportation, Aircraft, Aviation safety, Rotorcraft, Safety.

The Proposed Amendments

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR parts 27 and 29 as follows:

PART 27—AIRWORTHINESS STANDARDS: NORMAL CATEGORY ROTORCRAFT

1. The authority citation for part 27 continues to read as follows:

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

2. Add a new § 27.602 to read as follows:

§ 27.602 Critical parts.

(a) *Critical Part*—A critical part is a part, the failure of which could have a catastrophic effect upon the rotorcraft, and for which critical characteristics have been identified which must be controlled to ensure the required level of integrity.

(b) If the type design includes critical parts, a critical parts list shall be established. Procedures shall be established to define the critical design characteristics, identify processes that affect those characteristics, and identify the design change and process change controls necessary for showing compliance with the quality assurance requirements of part 21 of this chapter.

PART 29—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY ROTORCRAFT

3. The authority citation for part 29 continues to read as follows:

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

4. Add a new § 29.602 to read as follows:

§ 29.602 Critical parts.

(a) *Critical Part*—A critical part is a part, the failure of which could have a catastrophic effect upon the rotorcraft, and for which critical characteristics have been identified which must be controlled to ensure the required level of integrity.

(b) If the type design includes critical parts, a critical parts list shall be established. Procedures shall be established to define the critical design characteristics, identify processes that affect those characteristics, and identify the design change and process change controls necessary for showing compliance with the quality assurance requirements of part 21 of this chapter.

Issued in Washington, DC, on August 17, 1998.

Thomas E. McSweeny,

Director, Aircraft Certification Service.

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