(2) Chattels and crops, other than horses,

(3) Other assets owned by the applicant,

(4) Third party pledges of property not owned by the applicant,

(5) Repayment ability under paragraph (c) of this section.

* * * * *

■ 12. Amend paragraph § 764.356 by adding paragraph (c) to read as follows:

§ 764.356 Appraisal and valuation requirements.

* * * * *

(c) In the case of an equine loss loan:

(1) The applicant's Federal income tax and business records will be the primary source of financial information. Sales receipts, invoices, or other official sales records will document the sales price of individual animals.

(2) If the applicant does not have 3 complete years of business records, the Agency will obtain the most reliable and reasonable information available from sources such as the Cooperative Extension Service, universities, and breed associations to document production for those years for which the applicant does not have a complete year of business records.

Signed on November 23, 2011.

Bruce Nelson,

Administrator, Farm Service Agency.

[FR Doc. 2011–31046 Filed 12–1–11; 8:45 am]

BILLING CODE 3410–05–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 29

[Docket No. FAA–2009–0413; Amdt. No. 29–55]

RIN 2120–AJ51

Fatigue Tolerance Evaluation of Metallic Structures

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rule amends the airworthiness standards for fatigue tolerance evaluation (FTE) of transport category rotorcraft metallic structures. This revises the FTE safety requirements to address advances in structural fatigue substantiation technology for metallic structures. This provides an increased level of safety by avoiding or reducing the likelihood of the catastrophic fatigue failure of a metallic structure. These increased safety requirements will help ensure that should serious accidental damage occur during manufacturing or within the operational life of the rotorcraft, the remaining structure could withstand, without failure, any fatigue loads that are likely to occur, until the damage is detected or the part is replaced. Besides improving the safety standards for FTE of all principal structural elements (PSEs), the amendment is harmonized with international standards.

DATES: Effective January 31, 2012.

ADDRESSES: For information on where to obtain copies of rulemaking documents and other information related to this final rule, see ''How To Obtain Additional Information'' at the end of the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this action, contact Sharon Y. Miles, Regulations and Policy Group, Rotorcraft Directorate, ASW–111, Federal Aviation Administration, 2601 Meacham Blvd., Fort Worth, Texas 76137–0111; telephone number (817) 222–5122; facsimile (817) 222–5961; email *sharon.y.miles@faa.gov*.

For legal questions concerning this action, contact Steve C. Harold, Directorate Counsel, ASW–7GI, Federal Aviation Administration, 2601 Meacham Blvd., Fort Worth, Texas 76137–0007; telephone (817) 222–5099; facsimile (817) 222–5945; email *steve.c.harold@faa.gov*.

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

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

This rulemaking is issued under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, ''General Requirements,'' Section 44702, ''Issuance of Certificates,'' and Section 44704, ''Type Certificates, Production Certificates, and Airworthiness Certificates.'' Under section 44701, the FAA is charged with prescribing regulations and minimum standards for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. Under section 44702, the Administrator may issue various certificates including type certificates, production certificates, air agency certificates, and airworthiness certificates. Under section 44704, the Administrator must issue type certificates for aircraft, aircraft engines, propellers, and specified appliances when the Administrator finds the product is properly designed and manufactured, performs properly, and meets the regulations and minimum standards prescribed under section 44701(a). This regulation is within the scope of these authorities because it will promote the safety of transport category rotorcraft metallic structures by updating the existing minimum prescribed standards, used during the type certification process, to address advances in metallic structural fatigue substantiation technology. It will also harmonize this standard with international standards for evaluating the fatigue strength of transport category rotorcraft metallic primary structural elements.

I. Overview of Final Rule

This rule for rotorcraft metallic structures revises fatigue evaluation requirements to improve safety and reduce the occurrence of catastrophic fatigue failures of metallic structures. Some of the more significant revisions are summarized below.

We have determined that the current rule is too prescriptive by directing the applicant to use specific methodologies to meet the safety objective. This approach has had the effect of lessening the significance of the basic objective of evaluating fatigue tolerance because in practice, the primary focus is on means of compliance. Thus, the entire rule has been rewritten to stress the performance objectives and deemphasize specific methodologies. We deleted all references to specific FTE methods (that is, flaw tolerant safe-life, fail-safe, and safe-life). The words ''flaw tolerant'' and ''fail-safe'' have different meanings depending on usage. Instead, we now use ''fatigue tolerance'' which encompasses the entire fatigue evaluation process (including crack initiation, crack growth, and final failure) with or without the influence of damage.

Industry currently uses a variety of FTE methods; all of these methods have merit and could potentially be effective, depending on the specifics of the damage being addressed. To reflect this flexibility, the amended rule requires a specific result (that is, inspection, retirement times, or equivalent means to avoid catastrophic failure), but does not specify the method to achieve this result. However, this rule does require that all methods be validated by testing, and that the Administrator must approve the methodology used for compliance.

We have determined that, in general, standards for the safest metallic structures use both inspections and

retirement times together to mitigate the risk of catastrophic failure due to fatigue. Consequently, § 29.571(h) requires inspections and retirement times or approved equivalent means to be established to avoid catastrophic failure, resulting in an increased level of safety for metallic structures.

Also, we added a key element to the FTE: the identification of all threats that need to be considered to quantify damage to metallic structures. Accordingly, paragraph (e)(4) of § 29.571 requires a threat assessment for all identified PSEs.

We recognize that an inspection approach may not be possible for some kinds of damage. Thus, we include a provision that would not require inspections if effective inspections cannot be established within the limitations of geometry, inspectability, or good design practice. In this instance, other FAA approved procedures must be implemented to minimize the probability of the damage occurring or contributing to a catastrophic failure.

The following table contains an overview of the costs and benefits associated with the rule.

TABLE 1—PRESENT VALUE BENEFITS AND COSTS—27 YEARS

Benefits (27 years) accidents averted		Costs (millions) (27 years)	Benifits minus costs (27 years)	Revised rule effectiveness (percent)
Number	$Value (millions)			
2	$5.6	$2.9	$2.7	22
5	14.1	2.9	11.2	56
9	25.4	2.9	22.5	100

03/16/2011

II. Background

Rotorcraft fatigue strength reduction or failure may occur due to aging, temperature, moisture absorption, impact damage, or other factors. Since a reduction in strength of any primary structural element can lead to a catastrophic failure, it is important to evaluate fatigue tolerance.

A FTE provides a strength assessment of PSEs. It requires the applicant to evaluate the strength of various rotorcraft components including—but not limited to—rotors, rotor drive systems between the engines and the main and tail rotor hubs, controls, fuselage, fixed and movable control surfaces, engine and transmission mountings, landing gear, and their related primary attachments. A FTE of PSEs is performed to determine the appropriate required inspections and retirement times to avoid catastrophic failure during the operational life of the rotorcraft.

The current regulations do not address advances in structural fatigue substantiation technology for metallic structures (for example, advances in the safe-life methodology, and developments in crack growth methodology) required for the unique characteristics of a rotorcraft. This rule addresses those advances and amends the airworthiness standards for FTE of transport category rotorcraft metallic structures.

Fatigue Evaluation Techniques and Requirements

In the 1950s, safe-life methodology, such as described in AC 27–1B, MG 11, was used to evaluate the occurrence of fatigue conditions in rotorcraft dynamic components to establish retirement times. Historically, this methodology has provided satisfactory reliability for transport category rotorcraft. In addition, manufacturers included routine inspections in their maintenance programs to detect damage, such as scratches, corrosion, wear, or cracks. These inspections were not based on analysis or tests, but rather on experience with similar designs, engineering judgment, and good design practices. The inspections helped minimize the effect of damage when the rotorcraft was being operated.

In the 1980s, industry recognized that a higher reliability for fatigue critical structural components may be achieved by considering the strength reducing effects of damage that can occur during manufacture or operation. About that same time, rotorcraft manufacturers were introducing advanced composite materials for fatigue critical components in their rotorcraft.

The introduction of composites led manufacturers and regulatory authorities to develop a more robust safe-life methodology by considering the specific static and fatigue-strength reduction effects due to aging, temperature, moisture absorption, impact damage, and other factors. Furthermore, where clearly visible damage resulted from impact or other sources, inspection programs were developed to maintain safety.

With these developments, crack growth methodology has been used successfully for solving short-term airworthiness issues in metallic structures of rotorcraft and in the certification of civil and military transport aircraft. These advances in design, analytical methods, and other industry practices have made it feasible to address certain types of damage that could result in fatigue failure.

Consistent with these technological advancements, the regulatory requirements of § 29.571 were substantially revised by Amendment 29–28 (54 FR 43930, October 27, 1989). Although Amendment 29–28 became effective in 1989, it has rarely been used for certification of completely new rotorcraft designs because there have been only a limited number of new rotorcraft designs since it was adopted. However, despite the limited opportunity for actual application of Amendment 29–28, the rotorcraft community's general understanding of rotorcraft FTE has developed considerably. Also, there has been much discussion within the technical community about the meaning of Amendment 29–28 and the merits of its prescribed fatigue tolerance methodologies.

These methodologies, discussed in Amendment 29–28, have been the subject of a series of meetings between the FAA, the rotorcraft industry, and the Technical Oversight Group for Aging Aircraft (TOGAA). These meetings and the industry's position concerning rotorcraft fatigue and damage tolerance were documented in a White Paper, ''Rotorcraft Fatigue and Damage Tolerance.''

The rotorcraft industry White Paper recommended that safe-life methods should be complemented by damage tolerance methods, but also recommended retention of the flaw tolerant safe-life method, introduced in Amendment 29–28, as an available option. However, in 1999, TOGAA recommended that current safe-life methods be complemented by damage tolerance assessment methods and that

the flaw tolerant safe-life method be removed from the regulations. Because both groups recommended various methods of evaluating fatigue, the FAA decided to consider revision of the regulations.

The FAA tasked the Aviation Rulemaking Advisory Committee (ARAC) in 1991 to study the need to revise the regulations on fatigue evaluation in light of advances in technology and operational procedures and to develop regulatory recommendations.

The ARAC working group for this rule evaluated the industry White Paper, TOGAA's recommendations, and the continuing activities and results of rotorcraft damage tolerance research and development. Consequently, the working group recommended changes to the fatigue evaluation requirements for transport category rotorcraft found in 14 CFR 29.571 to address advances in technology and damage tolerance assessment methodologies. ARAC accepted those recommendations and presented them to the FAA. This rule is consistent with ARAC's recommendations.

The Industry White Paper ''Rotorcraft Fatigue and Damage Tolerance,'' prepared for the TOGAA, January 1999, and the TOGAA memo to the FAA, dated 15 March 1999, are located in the docket.

A. Statement of the Problem

Before current Amendment 29–28, there was no requirement to assess the impact of damage on the fatigue performance of any rotorcraft structure. The strategy used to manage fatigue was limited to retirement of the rotorcraft part or component before the probability of crack initiation became significant, and the ''safe-life'' method was used to establish retirement times.

It was generally agreed, based on in-service experience, that not accounting for damage could be a serious shortcoming. Therefore, Amendment 29–28 requires the applicant to consider damage when performing fatigue evaluations unless it establishes that, for a particular structure, damage evaluation cannot be achieved within the limitations of geometry, inspectability, or good design practice. Amendment 29–28 prescribes two new methods to account for damage (''flaw tolerant safe-life'' and ''fail-safe''), referred to as flaw tolerant methods. The original (''safe-life'') method contained in Amendment 29–28 can be used if either of the two new methods requiring damage evaluation is not achievable within the limitations of geometry, inspectability, or good design practice.

Within the context of current § 29.571, the ''flaw tolerant safe-life'' method and the ''fail-safe'' method are considered equivalent options. The ''flaw tolerant safe-life'' method is based on crack initiation time in purposely ''flawed'' PSEs to determine retirement time. The flaw tolerant ''fail-safe'' method is based on a crack growth life in a purposely ''flawed'' PSE to determine inspection requirements.

The ''safe-life'' method is based on a crack initiation time in a ''non-flawed'' PSE to determine a retirement life. Although the ''safe-life'' method does not explicitly account for any damage, under current § 29.571, it is the prescribed default fatigue evaluation method if the applicant shows that neither of the flaw tolerant methods can be achieved within the limitations of geometry, inspectability, or good design practice.

One of the primary issues the working group addressed was the equivalency of the two flaw tolerant methods. While both can be used to assess damage, their equivalency, from a technical perspective, is difficult to evaluate without specific factual details. To address this concern, the working group considered two issues: establishing inspection requirements using the flaw tolerant safe-life method, and establishing retirement times using the fail-safe method. While both are theoretically possible, their effectiveness cannot be evaluated without considering the details of a specific application. Additionally, while using the flaw tolerant safe-life method for establishing an inspection interval is not within the intent of the Amendment 29–28, the fail-safe method for establishing retirement times has been accepted as meeting its intent.

B. Related Actions

The FAA has a separate rulemaking activity to address FTE of a composite structure. Because rotorcraft manufacturers increased the use of advanced composite materials for their rotorcraft structural components, we determined that a separate requirement specific to composite structures is required to address the unique characteristics and structural capability of composite structures.

C. Summary of the NPRM

The FAA published the NPRM for this rule in the **Federal Register** on March 12, 2010 (75 FR 11799). The comment period for the NPRM was scheduled to close on June 10, 2010. In response to a European Aviation Safety Agency (EASA) request, the FAA extended the comment period closing date to July 30, 2010 (published in the **Federal Register** May 5, 2010, 75 FR 24501). The FAA received 3 comments from Transport Canada.

D. General Overview of Comments

Although the 3 comments are discussed more fully in the discussion section of this final rule, in summary, they deal with the following two subjects:

- Acceptability in rotorcraft of some PSE structures crack growth methodology allowed in fixed-wing aircraft; and
- Suggested rewording of paragraph (f) for clarification.

III. Discussion of Public Comments and Final Rule

A. Acceptability in Rotorcraft of Some PSE Structures Crack Growth Methodology Allowed in Fixed-Wing Aircraft

Transport Canada asked if some PSEs on rotorcraft, especially airframe structures, may be considered to meet the inspection requirement without being subjected to a requirement for retirement based solely on the crack growth methodology. The commenter believes that the crack growth methodology may be used for fixed-wing aircraft to determine inspection intervals (and, in the process, inspection techniques) without requiring the retirement of the PSEs.

Because of the vastly different dynamic characteristics of rotorcraft when compared to fixed-wing aircraft, we do not concur with the commenter's proposal. The rule requires both appropriate inspections and a retirement time. If an inspection cannot be established within the limits of geometry, inspectability, or good design practice, then the applicant must establish supplemental procedures in conjunction with the PSE retirement time. This rule does not allow inspections only for PSEs. The rule requires inspections and retirement times. If inspections cannot be established within certain conditions, then supplemental procedures, in conjunction with the PSE retirement time, must be established. Therefore, the FAA is adopting the rules as proposed in the NPRM.

B. Rewording of Paragraph (f) for Clarification

Transport Canada suggested that paragraph (f) needs rewording to avoid possible misunderstanding or misinterpretation. It comments that:

- The term ''allowable damage'' has been widely used by some aircraft

manufacturers to set a limit for the damages, below which there is no need for repair. The commenter suggested this sentence should be reworded to clearly indicate that the residual strength of the remaining structures is required to successfully carry limit loads.

• If the second sentence of paragraph (f) is intended to require a determination of the critical size of damage in order to determine inspection intervals, the phrase ''within its operational life'' should be removed. However, if it is intended to require limit loads to be applied to ensure that, within an inspection interval, the remaining structures would carry successfully the limit loads, the phrase ''within its operational life'' should be replaced with ''within an inspection interval.''

As used in the proposal, the FAA intends the ''allowable damage'' to be the maximum damage at which the rotorcraft structure is capable of carrying the limit load. This ''allowable damage'' would be determined during the FTE. Once the rotorcraft is in service, any damage detected during an inspection interval must be repaired or the part must be replaced before further flight.

The residual strength is based on the maximum damage determined from the threat assessment for which the structure retains its limit load capability. During the damage growth, the damage may be undetected for some time between inspection intervals. Thus, the applicant must show that the structure retains its limit load capability for a determined maximum damage when evaluating the residual strength in order to avoid a catastrophic failure. To clarify this requirement, we have reworded paragraph (f).

IV. Regulatory Notices and Analyses

A. Regulatory Evaluation

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and Executive Order 13563 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or Tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this final rule. We suggest readers seeking greater detail read the full regulatory evaluation, a copy of which we have placed in the docket for this rulemaking.

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

(1) Has benefits that justify its costs;

(2) Is not an economically ''significant regulatory action'' as defined in section 3(f) of Executive Order 12866;

(3) Is ''non-significant'' as defined in DOT's Regulatory Policies and Procedures;

(4) Will have a non-significant economic impact on a substantial number of small entities;

(5) Will not have a significant effect on international trade; and

(6) Will not impose an unfunded mandate on state, local, or Tribal governments, or on the private sector by exceeding the monetary threshold identified.

These analyses are summarized below.

Total Benefits and Costs of This Rulemaking

The estimated total cost of this final rule is about $9.0 million ($2.9 million in present value at 7% for 27 years). The estimated potential benefits of avoiding at least two of the 9 avoidable historical transport category helicopter accidents are worth about $12.9 million ($5.6 million in present value).

Who is potentially affected by this rulemaking?

• Manufacturers of U.S.-registered part 29 rotorcraft, and

• Operators of part 29 rotorcraft.

Our Cost Assumptions and Sources of Information.

• Discount rate—7%.

• Period of analysis of 27 years equals the 27 years of National Transportation Safety Board accident history. During this period manufacturers will seek new certifications for six part 29 rotorcraft and the total new production helicopters are estimated to be about 1,300.

• Value of fatality avoided—$5.8 million (Source: U.S. Department of Transportation, *Treatment of the Value of a Statistical Life in Department Analyses,* February 5, 2008.)

Benefits of This Rule

The benefits of this final rule consist of the value of lives and property saved due to avoiding accidents involving part 29 rotorcraft. Nine Transport Category rotorcraft accidents could have been avoided by this rule over the past 27-year historical period. The potential benefit of this final rule will be to avoid at least two of these accidents with a value of approximately $12.9 million ($5.6 million in present value).

Cost of This Rule

We estimate the costs of this final rule to be about $9.0 million ($2.9 million in present value) over the 27-year analysis period. Manufacturers of 14 CFR part 29 rotorcraft will incur costs of $532,000 ($293,000 in present value) and operators of 14 CFR part 29 helicopters will incur costs of $8.5 million ($2.6 million in present value).

B. 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 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. The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

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

No comments were received on the Regulatory Flexibility Determination in the NPRM.

This final rule will affect rotorcraft manufacturers and rotorcraft operators. Therefore, the effect on potential small entities is analyzed separately for helicopter manufacturers and operators.

Part 29 Helicopter Manufacturers

Size Standards

Size standards for small entities are published by the Small Business Administration (SBA) on their Web site at *http://www.sba.gov/size.* The size standards used herein are from ''SBA U.S. Small Business Administration, Table of Small Business Size Standards, Matched to North American Industry Classification System Codes''. The Table is effective August 22, 2008 and uses the 2007 NAICS codes.

Helicopter manufacturers are listed in the above Table under Sector 31–33—Manufacturing; Subsector 336—Transportation Equipment Manufacturing; NAICS Code 336411—Aircraft Manufacturing. The small entity size standard is 1,500 employees.

Table R1 shows the three U.S. part 29 helicopter manufacturers, Bell, Erickson Air Crane and Sikorsky. Erickson Air Crane, with 800 employees, is the only part 29 helicopter manufacturer to qualify as a small entity. In addition, Erickson Air Crane currently specializes in the production of the S–64 Sky Crane and is not expected to obtain new helicopter certifications. Therefore, it is not anticipated that this final rule will have a significant economic impact on a substantial number of part 29 helicopter manufacturers.

Table R1

U.S. Part 29 Helicopter Manufacturers

Manufacturer					Annual		
No.	Name	Ultimate Owner	Employees	Small Entity	Revenues (AR)	Proposal Costs (PC)	% PC of AR
1	Bell Helicopter (A)	Textron	42,000	No	$14.2B		
2	Erickson Air Crane (B)	None	800	Yes	N.A.		
3	Sikorsky (C)	UTC	223,100	No	$58.7B		

Notes:

(A) http://www.Textron.com/about/company

(B) http://www.tmcnet.com/usubmit/2009/02/05/3967898.htm

(C) http://www.utc.com/about_utc/fast_facts.lhtml

03/05/2005

Part 29 Helicopter Operators

Size Standards

While there are only three part 29 helicopter manufacturers in the United States, there are many operators of part 29 helicopters. Each of these operators may provide only one, or many services. These services range from off-shore transportation, executive transportation, fire-fighting services, Emergency Medical Services (EMS), and training to maintenance, repair, and modification services.

The SBA lists small entity size standards for air transportation under Sector 44–45, Retail Trade, Subsector 481, Air Transportation. The small entity size standards are 1,500 employees for scheduled and nonscheduled charter passenger and freight transportation. This standard is $28.0 million annually if the passenger or freight air transportation is offshore marine air transportation. Finally, the small entity size standard for other—non-scheduled air transportation is $7.0 million annually.

PHI, Inc. is one of the largest helicopter operators in the world. According to PHI's 2007 Annual Report, in 2007 they employed approximately 2,254 full time employees and had annual revenues of $446.4 million.

We have been unable to obtain the number of operators and the number of employees per operator. Therefore, we take the worst case scenario and assume that all operators will meet the SBA definition of a small entity. Thus, this final rule will affect a substantial

number of transport category helicopter operators.

Based on the information received from industry representatives, the cost of this final rule to a part 29 helicopter operator will be $1,600 for an inspection that must be performed every three years on each part 29 helicopter that is certificated under this final rule. This will be approximately $550 per helicopter per year. According to Bell Helicopter Product Specifications for the Bell 430 (a part 29 helicopter), January 2005, the direct operating cost of one flight hour is $671.44. Therefore, the final rule will add less than one direct hour of operating costs per year to a typical part 29 helicopter. Although this will be an increase in costs, this will not be a substantial increase in costs.

Consequently, as the FAA Administrator, I certify that this final rule will not have a significant economic impact on a substantial number of part 29 rotorcraft manufacturers or operators.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, establishing standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

The FAA has assessed the potential effect of this final rule and incorporates international standards in this regulation and therefore is in compliance with the Trade Agreements Act.

D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (adjusted annually for inflation) in any 1 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.'' The FAA currently uses an inflation-adjusted value of $143.1 million in lieu of $100 million. This final rule does not contain such a mandate.

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose any information collection requirement unless it displays a currently valid Office of Management and Budget (OMB) control number.

This final rule will impose the following new information collection requirements. As required by 44 U.S.C. 3507(d) of the Paperwork Reduction Act of 1995, the FAA has submitted the information collection requirements associated with this rule to OMB for its review. Notice of OMB approval for this information collection will be published in a future **Federal Register** document.

Summary: This rule revises the FTE safety requirements to address advances in structural fatigue substantiation technology for metallic structures. An increased level of safety will be provided by avoiding or reducing catastrophic fatigue failures of metallic structures. These increased safety requirements will help ensure that should accidental damage occur during manufacturing or within the operational life of the rotorcraft, the remaining structure could, without failure, withstand fatigue loads that are likely to occur until the damage is detected and repaired or the part is replaced. In addition to improving the safety standards for FTE of all PSE, the amendment would lead to a harmonized international standard.

Public comments: No public comments were received on the information collection requirements discussed in the NPRM.

Use: To obtain type certification of a rotorcraft, an applicant must show that the rotorcraft complies with specific certification requirements. To show compliance, the applicant must submit substantiating data. FAA engineers or designated engineering representatives from industry will review the required data submittals to determine if the rotorcraft complies with the applicable minimum safety requirements for fatigue critical rotorcraft metallic structures and that the rotorcraft has no unsafe features in the metallic structures.

Respondents (including number of): The likely respondents to this proposed information requirement are applicants for certification of fatigue critical metallic parts for transport category helicopters. A conservative estimate of the number of applicants affected by this amendment would average 2 certification applicants every 10 years.

Frequency: The frequency of collection of this information is established as needed by the respondent to meet their certification schedule. The respondent must submit the required information prior to type certification, which can span a number of years.

Annual Burden Estimate: There will be 71.7 annual certification reporting and record keeping hours. The corresponding annual inspection hours are 197.1 (see table 12–1). The total annual certification reporting and record keeping hours are $7,167. The corresponding annual inspection costs are $11,827 (see table 13–1).

TABLE 12–1—ESTIMATED HOUR BURDEN OF INFORMATION COLLECTION REPORTING AND RECORDKEEPING

Item	Number of hours
Certification Reporting and Recordkeeping Hours	
Reporting and Recordkeeping Hours per Certification	322.5
New Certifications	6.0
Total Certification Reporting and Recordkeeping Hours	1,935.0
Number of Years	27.0
Annual Certification Reporting and Recordkeeping Hours	71.7

TABLE 12–1—ESTIMATED HOUR BURDEN OF INFORMATION COLLECTION REPORTING AND RECORDKEEPING—Continued

Item	Number of hours
Inspection Reporting and Recordkeeping Hours	
Reporting and Recordkeeping Hours per Inspection	1.0
Total Aircraft Inspections	5,322.0
Total Inspection Reporting and Recordkeeping Hours	5,322.0
Number of Years	27.0
Annual Inspection Reporting and Recordkeeping Hours	197.1

TABLE 13–1—ESTIMATED HOUR BURDEN AND COSTS OF INFORMATION COLLECTION REPORTING AND RECORDKEEPING

Item	Number of hours/costs
Certification Reporting and Recordkeeping Hours and Costs	
Reporting and Recordkeeping Hours per Certification	322.5
New Certifications	6.0
Total Certification Reporting and Recordkeeping Hours	1,935.0
Unit Cost (Per Hour)	$100
Total Certification Reporting and Recordkeeping Costs	$193,500
Number of Years	27.0
Annual Certification Reporting and Recordkeeping Hours	71.7
Annual Certification Reporting and Recordkeeping Costs	$7,167
Inspection Reporting and Recordkeeping Hours	
Reporting and Recordkeeping Hours per Inspection	1.0
Total Aircraft Inspections	5,322.0
Total Inspection Reporting and Recordkeeping Hours	5,322.0
Unit Cost (Per Inspection)	$60
Total Inspection Reporting and Recordkeeping Costs	$319,320
Number of Years	27.0
Annual Inspection Reporting and Recordkeeping Hours	197.1
Annual Inspection Reporting and Recordkeeping Costs	$11,827

F. International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these regulations.

G. Environmental Analysis

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

H. Regulations Affecting Intrastate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the FAA, when modifying its regulations 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 appropriate regulatory distinctions. In the NPRM, the FAA requested comments on whether the proposed rule should apply differently to intrastate operations in Alaska. The agency did not receive any comments, and has determined, based on the administrative record of this rulemaking, that there is no need to make any regulatory distinctions applicable to intrastate aviation in Alaska.

V. Executive Order Determinations

A. Executive Order 13132, Federalism

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

B. Executive Order 13211, Regulations That Significantly Affect Energy Supply, Distribution, or Use

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

VI. How To Obtain Additional Information

A. Rulemaking Documents

An electronic copy of this rulemaking document may be obtained by using the Internet.

1. Search the Federal Docket Management System at *http://www.regulations.gov;*

2. Visit the FAA's Regulations and Policies Web page at *http://www.faa.gov/regulations_policies/or*

3. Access the Government Printing Office's Web page at *http://www.gpoaccess.gov/fr/index.html.*

Copies may also be obtained by sending a request (identified by notice, amendment, or docket number of this rulemaking) to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267–9680.

B. Comments Submitted to the Docket

Comments received may be viewed by going to *http://www.regulations.gov* and following the online instructions to search the docket number for this action. Anyone is able to search the electronic form of all comments received into any of the FAA's dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, *etc.*).

C. Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. A small entity with questions regarding this document, may contact its local FAA official, or the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. To find out more about SBREFA on the Internet, visit *http://www.faa.gov/regulations_policies/rulemaking/sbre_act/.*

List of Subjects in 14 CFR Part 29

Aircraft, Aviation safety.

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends chapter I of Title 14, Code of Federal Regulations as follows:

PART 29—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY ROTORCRAFT

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

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

■ 2. Revise § 29.571 to read as follows:

§ 29.571 Fatigue Tolerance Evaluation of Metallic Structure.

(a) A fatigue tolerance evaluation of each principal structural element (PSE) must be performed, and appropriate inspections and retirement time or approved equivalent means must be established to avoid catastrophic failure during the operational life of the rotorcraft. The fatigue tolerance evaluation must consider the effects of both fatigue and the damage determined under paragraph (e)(4) of this section. Parts to be evaluated include PSEs of the rotors, rotor drive systems between the engines and rotor hubs, controls, fuselage, fixed and movable control surfaces, engine and transmission mountings, landing gear, and their related primary attachments.

(b) For the purposes of this section, the term—

(1) *Catastrophic failure* means an event that could prevent continued safe flight and landing.

(2) *Principal structural element (PSE)* means a structural element that contributes significantly to the carriage of flight or ground loads, and the fatigue failure of that structural element could result in catastrophic failure of the aircraft.

(c) The methodology used to establish compliance with this section must be submitted to and approved by the Administrator.

(d) Considering all rotorcraft structure, structural elements, and assemblies, each PSE must be identified.

(e) Each fatigue tolerance evaluation required by this section must include:

(1) In-flight measurements to determine the fatigue loads or stresses for the PSEs identified in paragraph (d) of this section in all critical conditions throughout the range of design limitations required by § 29.309 (including altitude effects), except that maneuvering load factors need not exceed the maximum values expected in operations.

(2) The loading spectra as severe as those expected in operations based on loads or stresses determined under paragraph (e)(1) of this section, including external load operations, if applicable, and other high frequency power-cycle operations.

(3) Takeoff, landing, and taxi loads when evaluating the landing gear and other affected PSEs.

(4) For each PSE identified in paragraph (d) of this section, a threat assessment which includes a determination of the probable locations, types, and sizes of damage, taking into account fatigue, environmental effects, intrinsic and discrete flaws, or accidental damage that may occur during manufacture or operation.

(5) A determination of the fatigue tolerance characteristics for the PSE with the damage identified in paragraph (e)(4) of this section that supports the inspection and retirement times, or other approved equivalent means.

(6) Analyses supported by test evidence and, if available, service experience.

(f) A residual strength determination is required that substantiates the maximum damage size assumed in the fatigue tolerance evaluation. In determining inspection intervals based on damage growth, the residual strength evaluation must show that the remaining structure, after damage growth, is able to withstand design limit loads without failure.

(g) The effect of damage on stiffness, dynamic behavior, loads, and functional performance must be considered.

(h) Based on the requirements of this section, inspections and retirement times or approved equivalent means must be established to avoid catastrophic failure. The inspections and retirement times or approved equivalent means must be included in the Airworthiness Limitations Section of the Instructions for Continued Airworthiness required by Section 29.1529 and Section A29.4 of Appendix A of this part.

(i) If inspections for any of the damage types identified in paragraph (e)(4) of this section cannot be established within the limitations of geometry, inspectability, or good design practice, then supplemental procedures, in conjunction with the PSE retirement time, must be established to minimize the risk of occurrence of these types of damage that could result in a catastrophic failure during the operational life of the rotorcraft.

Issued in Washington, DC, on November 22, 2011.

J. Randolph Babbitt,

Administrator.

[FR Doc. 2011–30941 Filed 12–1–11; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2011–1328; Directorate Identifier 2011–CE–037–AD; Amendment 39–16880; AD 2011–25–04]

RIN 2120–AA64

Airworthiness Directives; Quest Aircraft Design, LLC Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.