

Proposed Rules

Federal Register

Vol. 67, No. 231

Monday, December 2, 2002

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

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

[Docket No. PRM-50-78]

Robert H. Leyse; Receipt of Petition for Rulemaking, Extension of Comment Period

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for rulemaking; extension of comment period.

SUMMARY: On October 31, 2002, the Nuclear Regulatory Commission (NRC) published for public comment a notice of receipt of a petition for rulemaking (PRM) filed by Robert H. Leyse (PRM-50-78). The petitioner is requesting that the NRC regulations that govern domestic licensing of production and utilization facilities be amended to address the impact of fouling on the performance of heat transfer surfaces throughout licensed nuclear power plants. The comment period for this PRM was to have expired on December 16, 2002, after a 45-day comment period. The comment period is normally 75 days. The NRC has decided to extend the comment period for an additional 30 days.

DATES: The comment period has been extended and now expires on January 16, 2003. Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received on or before this date.

ADDRESSES: Submit comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Attention: Rulemaking and Adjudications staff.

Deliver comments to 11555 Rockville Pike, Rockville, Maryland, between 7:30 a.m. and 4:15 p.m. on Federal workdays.

You may also provide comments via the NRC's interactive rulemaking Web site through the NRC home page (<http://ruleforum.llnl.gov>). At this site, you may view the petition for rulemaking,

this **Federal Register** notice of receipt, and any comments received by the NRC in response to this notice of receipt. Additionally, you may upload comments as files (any format), if your web browser supports that function. For information about the interactive rulemaking Web site, contact Ms. Carol Gallagher, (301) 415-5905 (e-mail: CAG@nrc.gov).

Certain documents related to this action, including comments received, may be examined at the NRC Public Document Room, 11555 Rockville Pike, Rockville, Maryland. These same documents may also be viewed and downloaded electronically via the rulemaking website.

FOR FURTHER INFORMATION CONTACT:

Michael T. Lesar, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone: 301-415-7163 or Toll-Free: 1-800-368-5642 or E-mail: MTL@NRC.Gov.

Dated at Rockville, Maryland, this 25th day of November, 2002.

For the Nuclear Regulatory Commission.

Annette Vietti-Cook,

Secretary of the Commission.

[FR Doc. 02-30417 Filed 11-29-02; 8:45 am]

BILLING CODE 7590-01-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. CE191]; Notice No. 23-03-022-SC]

Special Conditions: Air Tractor Incorporated, Models AT-401, AT-402, AT-502, AT-602, and AT-802; Seats With Goodrich Aircraft Interior Products (AIP) Four-Point Inflatable Restraints

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This notice proposes special conditions for the following Air Tractor AT series airplanes; AT-401, AT-402, AT-502, AT-602, and AT-802. These airplanes, as modified by Goodrich Aircraft Interior Products, will have novel and unusual design features associated with a four-point inflatable

(airbag) restraint. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: Comments must be received on or before January 2, 2003.

ADDRESSES: Comments on this proposal may be mailed in duplicate to: Federal Aviation Administration (FAA), Regional Counsel, ACE-7, Attention: Rules Docket, Docket No. CE191, 901 Locust, Room 506, Kansas City, Missouri 64106, or delivered in duplicate to the Regional Counsel at the above address. Comments must be marked: CE191. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: Pat Mullen, Federal Aviation Administration, Aircraft Certification Service, Small Airplane Directorate, ACE-111, 901 Locust, Kansas City, Missouri, 816-329-4128, fax 816-329-4090.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of these proposed special conditions by submitting such written data, views, or arguments, as they may desire. Communications should identify the regulatory docket or notice number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments will be considered by the Administrator. The proposals described in this notice may be changed in light of the comments received. All comments received will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Persons wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must include with those comments a self-addressed, stamped postcard on which the following statement is made:

“Comments to CE191.” The postcard will be date stamped and returned to the commenter.

Background

On March 8, 2002, Goodrich Aircraft Interior Products (GAIP), 1275 N. Newport Road, Colorado Springs, CO 80916-2779, applied for a supplemental type certificate to install four-point inflatable restraints in Air Tractor AT series airplanes AT-401, AT-402, AT-502, AT-602, and AT-802. The Air Tractor AT series airplanes comprise a group of agricultural aircraft certificated under 14 Code of Federal Regulations (CFR) 21.25, Restricted Category. These airplanes are intended for single pilot operation, sharing the same seating environment and seat-to-aircraft attachments. Therefore, the inflatable restraint system proposed by GAIP can be used with each Air Tractor model listed. The inflatable restraint system limits occupant forward excursion in case of an accident, while forming a protective cushion around the sides of the occupant's head. This will reduce the potential for head and torso injury. The inflatable four-point restraint behaves in a manner that is similar to an automotive airbag, but in this case, the airbags are integrated into each shoulder harness, inflating away from the occupant. The lapbelt portion of this four-point restraint is conventional and does not inflate. While airbags and inflatable restraints are standard in the automotive industry, the use of an inflatable four-point restraint is novel for agricultural operations.

Agricultural airplanes, like the Air Tractor AT series, contain many elements of a cashworthy design first described in a 1949 Cornell University study. These elements include a cockpit structure that encases the pilot, crushable structure forward of and underneath the pilot, a low-positioned instrument panel which the pilot's head would not strike, required use of a helmet, and other features such as a strong harness system and an energy absorbing seat. These design features have contributed to the excellent safety record of agricultural airplanes. The fatality rates experienced by the agricultural airplane fleet are roughly half of that experienced by the general aviation fleet. This lower fatality rate is in spite of a higher overall accident rate with respect to that of general aviation.

In consideration of the excellent fatality record of agricultural airplanes in general, and the Air Tractor AT series in particular, the FAA has determined that installation of a four-point inflatable restraint must be accomplished on the basis of not

lowering the current level of safety of the AT-401, AT-402, AT-502, AT-602, and AT-802. Therefore, the FAA considers that installation of an inflatable restraint as having two primary safety concerns:

- That it perform properly under foreseeable operating conditions, and;
- That it not perform in a manner or at such times as would constitute a hazard to the airplane or occupants.

The latter point has the potential to be the more rigorous of the requirements. Agricultural operations typically occur at very low altitudes. An unexpected deployment while conducting these operations may result in an unsafe condition in flight. The unexpected deployment may either startle the pilot, or generate a force sufficient to cause a sudden movement of the control stick. Either action could result in a loss of control of the airplane, the consequences of which are magnified due to the low operating altitude. The FAA has considered this when establishing the special conditions.

GAIP has developed a “Smartbelt” Four-Point Manually Adjusting Restraint seatbelt with an integrated inflatable airbag device. This inflatable restraint will rely on electronic sensors for firing and pyrotechnic charges for activation. These sensors could be susceptible to inadvertent activation, causing deployment in a potentially unsafe manner. The consequences of an inadvertent deployment must be considered in establishing the reliability of the system. GAIP must substantiate that the effects of an inadvertent deployment in flight are not a hazard to the airplane. In addition, the operating conditions of agricultural aircraft can generate a large amount of cumulative wear and tear on the restraint system. It is likely that the potential for inadvertent deployment increases as a result of this cumulative damage. Therefore, the impact of wear and tear on inadvertent deployment must be considered. Ultimately, because of the effects of this cumulative damage, a life limit must be established for the restraint system design.

There are additional factors to be considered to minimize the chances of inadvertent deployment. Agricultural airplanes are exposed to an extreme operating environment. The effect of this environment on inadvertent deployment of the restraint must be understood. The qualification testing of the firing hardware/software must consider the following:

- The airplane vibration levels appropriate for agricultural airplanes, and

- The inertial loads that result from typical flight or ground maneuvers, including gusts and hard landings. Any tendency for the firing mechanism to activate as a result of these loads or acceleration levels is unacceptable.

Other influences on inadvertent deployment include high intensity electromagnetic fields (HIRF). Since the sensors that trigger deployment are electronic, they must be protected from the effects of this threat. For complying with HIRF requirements, the inflatable system is considered a critical system if its deployment could have a hazardous effect on the airplane; otherwise, it is considered an essential system. Finally, the inflatable restraint should be protected from the effects of fire, so that an additional hazard is not created by, for example, a rupture of the pyrotechnic squib.

While restricted category aircraft need not demonstrate compliance to 14 CFR part 23, § 23.562, there are many elements of § 23.562 that can be used to ensure an adequate level of protection during an emergency landing. These elements include an appropriate crash pulse and various injury pass/fail criteria. Therefore, the inflatable seatbelt must undergo qualification tests of the firing hardware/software for the 26 G deceleration pulse defined under § 23.562(b)(2). When the inflatable portion of the restraint is subjected to, and operates as a result of the 26 G deceleration pulse, it must be shown that deployment of the device will not be a hazard to the occupant. This can be accomplished by assuring that the 4-point restraint does not ride above the pelvis into the abdomen, as required by § 23.562(c)(4). This also includes satisfying the maximum harness loads permitted by § 23.562(c)(6).

Given the level of safety of the current Air Tractor harness, the inflatable restraint must show that it will offer an equivalent level of protection in the event the inflatable portion fails to deploy. In the event of an inadvertent deployment, the restraint must still have the same strength capability after the inflatable portion of the restraint has been deployed. There is no requirement for the inflatable portion of the restraint to offer protection during multiple impacts, where more than one impact would require protection.

The inflatable seatbelt system must deploy and provide protection under crash conditions where it is necessary to prevent serious injury. In support of this operational capability, there must be a means to verify the integrity of this system before each flight. As an option, GAIP can establish inspection intervals

where they have demonstrated the system to be reliable between these intervals.

It is possible a wide range of occupants will use the inflatable restraint. Thus, the protection offered by this restraint should be effective for occupants that range from the fifth percentile female to the ninety-fifth percentile male. In addition, the operation of this restraint must be transparent to the user. Therefore, the design must prevent the inflatable seatbelt from being incorrectly buckled and/or installed such that the airbag would not properly deploy. In addition, when deployment does occur, there must not be a release of hazardous quantities of gas or particulate matter into the cockpit area.

Finally, the inflatable restraint is likely to have a large volume displacement, where the inflated bag could impede the egress of an occupant. Since the bag deflates to absorb energy, it is likely that the inflatable restraint would be deflated at the time an occupant would attempt egress. However, it is appropriate to specify a time interval after which the inflatable restrain may not impede rapid egress. Ten seconds has been chosen as reasonable time. This time limit will offer a level of protection throughout the impact event.

Type Certification Basis

Under the provisions of § 21.101, Goodrich Aircraft Interior Products must show that the Air Tractor AT series airplanes AT-401, AT-402, AT-502, AT-602, and AT-802, as changed, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. A17SW (for AT-401, AT-402, and AT-502) and Type Certificate No. A19SW (for AT-602 and AT-802) or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the "original type certification basis." The regulations incorporated by reference in Type Certificate No. A17SW are as follows:

- For models AT-401, AT-401A, and AT-401B, § 21.25(a)(1), 14 CFR part 23 through 23-9, and Appendix B, CAM 8. For models AT-402, AT-402A, AT-402B, AT-502, AT-502A, and AT-502B, § 21.25(a), (b)(1), (b)(2), Amendments 23-1 through 23-9, Appendix B, CAM 8, and additional turbine engine requirements that are of no relevance to the special conditions.

The regulations incorporated by reference in Type Certificate No. A19SW are as follows:

- For model AT-602, 14 CFR part 23 through Amendment 23-42. For model AT-802, 14 CFR part 23 through Amendment 23-42, plus § 21.25(b)(1), (b)(2), and (b)(7). For model AT-802A, 14 CFR part 23 through Amendment 42, plus § 21.25(b)(1), (b)(2), and (b)(7). For each model listed above, the certification basis also includes all exemptions, if any; equivalent level of safety findings, if any; and the special conditions adopted by this rulemaking action.

The Administrator has determined that the applicable airworthiness regulations (*i.e.*, part 23 as amended) do not contain adequate or appropriate safety standards for the GAIP inflatable restraint as installed on Air Tractor models AT-401, AT-402, AT-502, AT-602, and AT-802 because of a novel or unusual design feature. Therefore, special conditions are prescribed under the provisions of § 21.6.

In addition to the applicable airworthiness regulations and special conditions, Air Tractor models equipped with the GAIP inflatable restraint must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34.

Special conditions, as appropriate, as defined in § 11.19, are issued in accordance with § 11.38, and become part of the type certification basis in accordance with § 21.101(b)(2).

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, the special conditions would also apply to that model under the provisions of § 21.101(a)(1).

Novel or Unusual Design Features

Air Tractor Models AT-401, AT-402, AT-502, AT-601, and AT-802 will incorporate the following novel or unusual design features.

The Goodrich Aircraft Interior Products "Smartbelt" Four-Point Manually Adjusting Restraint Seatbelt

The purpose of the inflatable airbag seatbelt is to reduce the potential for injury in the event of an accident. In a severe impact, airbags will deploy out of the shoulder harnesses portion of the restraint, in a manner similar to an automotive airbag. These airbags will restrain the motion of the occupant during a severe impact and offer some protection to the head of the occupant. The restraint will rely on electronic sensors for firing, and pyrotechnic charges for activation.

The CFR states performance criteria for seats and restraints in an objective manner. However, none of these criteria are adequate to address the specific issues raised concerning inflatable restraints in agricultural airplanes. Therefore, the FAA has determined that, in addition to the requirements of part 21 and part 23, special conditions are needed to address the installation of inflatable four-point restraints.

Accordingly, these special conditions are adopted for Air Tractor Models AT-401, AT-402, AT-502, AT-602, and AT-802 equipped with the Goodrich Aircraft Interior Products four-point inflatable restraint. Other conditions may be developed, as needed, based on further FAA review and discussions with the manufacturer and civil aviation authorities.

The FAA has determined that this project will be accomplished on the basis of not lowering the current level of safety for these Air Tractor models. The FAA recognizes that the current Air Tractor occupant restraint system has an excellent safety record. The FAA has considered the installation of inflatable restraints as having two primary safety concerns: (1) That they perform properly under foreseeable operating conditions; (2) that they not perform in a manner or at such times as would constitute a hazard to the airplane or occupants.

Applicability

As discussed above, these special conditions are applicable to the Air Tractor model series AT-401, AT-402, AT-502, AT-602, and AT-802 equipped with the GAIP four-point inflatable restraint. Should GAIP apply at a later date for a supplemental type certificate to modify any other model on Type Certificate numbers A17SW or A19SW to incorporate the same novel or unusual design feature, the special conditions would apply to that model as well under the provisions of § 21.101(a)(1).

Conclusion

This action affects only certain novel or unusual design features on Air Tractor model series AT-401, AT-402, AT-502, AT-602, and AT-802 airplanes. It is not a rule of general applicability, and it affects only the applicant who applied to the FAA for approval of these features on the airplane.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

Citation

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113 and 44701; 14 CFR 21.16 and 21.101 for STC or 21.17 for TC; and 14 CFR 11.38 and 11.19.

The Proposed Special Conditions

The FAA has determined that this project will be accomplished on the basis of not lowering the current level of safety for the Air Tractor Model AT-401, -402, -502, -602, and -802 series occupant restraint design. Accordingly, the (FAA) proposes the following special conditions as part of the type certification basis for Air Tractor series airplanes AT-401, AT-402, AT-502, AT-602, and AT-802 modified by Goodrich Aircraft Interior Products.

4-Point Inflatable Restraints for Agricultural Airplanes

1. It must be shown that the inflatable seatbelt will deploy and provide protection under crash conditions where it is necessary to prevent serious injury. A dynamic test is required to verify that the system operates as intended when subjected to the 26 G deceleration pulse described in § 23.562(b)(2). The dynamic test need only be performed using a 50 percentile male ATD.

2. The means of protection must take into consideration a range of stature from a 5 percentile female to a 95 percentile male. The inflatable seatbelt must provide a consistent level of energy absorption throughout that range.

3. The design must prevent the inflatable seatbelt from either being incorrectly buckled or incorrectly installed, or both, such that the airbag would not properly deploy.

4. It must be shown that an inadvertent deployment does not cause an unsafe condition (or hazard to the airplane). Consideration needs to be given as a result of wear and tear, or inertial loads resulting from in-flight or ground maneuvers (including gusts and hard landings), likely to be experienced in service. The seat belt must have the same strength capability after the inflatable portion of the restraint has been deployed.

5. It must be shown that deployment of the device is not hazardous to the occupant. In addition, the seated occupant must not be injured as established by criteria in § 23.562 as a result of the inflatable seatbelt deployment, including keeping the lap belt located on the pelvis.

6. It must be shown that the inflatable seatbelt will not impede rapid egress of

the occupant 10 seconds after its deployment.

7. For the purpose of complying with HIRF and lightning requirements, the inflatable seatbelt system is considered a "critical system" if its deployment could have a hazardous effect on the airplane; otherwise, it is considered an "essential" system.

8. It must be shown that the inflatable seatbelt will not release hazardous quantities of gas or particulate matter into the cabin.

9. The inflatable seatbelt installation must be protected from the effects of fire such that no hazard to occupants will result.

10. There must be a means to verify the integrity of the inflatable seatbelt activation system before each flight or it must be demonstrated to reliably operate between inspection intervals.

11. A life limit needs to be established for appropriate system designs.

12. Qualification testing of the internal firing mechanism must be accomplished using the vibration levels appropriate for an agricultural airplane.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-30325 Filed 11-29-02; 8:45 am]

BILLING CODE 4910-13-M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NE-12-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Turmo IV A and Turmo IV C Series Turboshaft Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to Turbomeca Turmo IV A and IV C series turboshaft engines. This proposal would require initial and repetitive borescope and eddy current or ultrasonic inspections of centrifugal compressor intake wheel blades for cracks and evidence of corrosion pitting, and, if found cracked or if there is evidence of corrosion pitting, replacement with serviceable parts. This proposal is prompted by reports of cracked centrifugal compressor intake wheel blades, resulting in the release of

one or more blade fragments. The actions specified by the proposed AD are intended to prevent centrifugal compressor intake wheel blade cracks, which can result in in-flight engine power loss or shutdown.

DATES: Comments must be received by January 31, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-12-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: 9-ane-adcomment@faa.gov. Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in the proposed rule may be obtained from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 64 40 00; fax (33) 05 59 64 60 80. This information may be examined, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT:

Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7751; fax (781) 238-7199.

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. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this