[Federal Register, Volume 89 Number 162 (Wednesday, August 21, 2024)]
[Rules and Regulations]
[Pages 67527-67530]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2024-18634]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0772; Project Identifier MCAI-2023-01203-T; Amendment 39-22789; AD 2024-14-08]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. (Type Certificate Previously Held by Yaborã Indústria Aeronáutica S.A.; Embraer S.A.) Airplanes

AGENCY:

Federal Aviation Administration (FAA), DOT.

ACTION:

Final rule.

SUMMARY:

The FAA is adopting a new airworthiness directive (AD) for certain Embraer S.A. Model ERJ 170 airplanes. This AD was prompted by a manufacturing quality escape concerning some overheat detection system (ODS) sensing elements. This AD requires inspecting the ODS sensing elements and performing applicable corrective actions, and prohibits the installation of affected parts, as specified in an Agência Nacional de Aviação Civil (ANAC) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective September 25, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 25, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2024-0772; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For ANAC material, contact ANAC, Aeronautical Products Certification Branch (GGCP), Rua Dr. Orlando Feirabend Filho, 230—Centro Empresarial Aquarius—Torre B—Andares 14 a 18, Parque Residencial Aquarius, CEP 12.246-190—São José dos Campos—SP, Brazil; phone 55 (12) 3203-6600; email*pac@anac.gov.br;* website *anac.gov.br/en/*. You may find this material on the ANAC website *sistemas.anac.gov.br/certificacao/DA/DAE.asp*.
- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at*regulations.gov* under Docket No. FAA-2024-0772.

FOR FURTHER INFORMATION CONTACT:

Joshua Bragg, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: 817-222-5366; email: *joshua.k.bragg@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Embraer S.A. Model ERJ 170-100 LR, -100 SE, -100 STD, and -100 SU airplanes; and Model ERJ 170-200 LL, -200 LR, -200 STD, and -200 SU airplanes. The NPRM published in the **Federal Register** on April 2, 2024 (89 FR 22640). The NPRM was prompted by AD 2023-11-01, effective November 21, 2023, issued by ANAC, which is the aviation authority for Brazil (ANAC AD 2023-11-01) (also referred to as the MCAI). The MCAI states a quality escape occurred during manufacturing concerning some ODS sensing elements produced before January 31, 2021. A defective sensing element may not be able to detect a thermal bleed leak, which is a latent failure, and depending on the affected area, may start an ignition source in the fuel tank, which could damage some electronic boxes and expose the wing structure to high temperature gradients and unexpected thermal loads, which could result in reduced structural integrity of the airplane.

In the NPRM, the FAA proposed to require inspecting the ODS sensing elements and performing applicable corrective actions, and would prohibit the installation of affected parts, as specified in ANAC AD 2023-11-01. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA-2024-0772.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

The FAA received additional comments from two commenters, including Horizon Air and Skywest. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for ATA Code Correction

Horizon Air requested a change to paragraph (d) of the proposed AD, which identifies the subject as ATA 75, Bleed Air. Horizon Air requested that the final rule identify the subject as ATA 36, Pneumatic System.

The FAA agrees and has corrected the subject matter ATA code in this AD.

Request for Clarification on Approved Service Bulletin

Skywest requested a clarification on paragraph (h)(2) of the proposed AD that requires adding "in accordance with Embraer Service Bulletin 170-36-0027, revision 04, dated September 5, 2023; or later revisions approved by ANAC." The commenter stated that this statement appears misleading because the approval paragraph in that service bulletin does not state it is ANAC approved, but merely states it does not affect the type design previously approved by ANAC. It appears, for this service bulletin, ANAC issues their approval in a separate document that may not be readily available. The commenter also stated that with the AD as proposed, and without an explicit statement in the service bulletin stating it is ANAC approved, it seems an alternative method of compliance (AMOC) would be required to use any later revision. This service bulletin has also been revised to Revision 05 on April 1, 2024.

The FAA provides the following clarification for paragraph (h)(2) of this AD. If the approval statement in the service bulletin does not state it is ANAC approved, the operator can contact Embraer, ANAC, or the FAA to determine if the service bulletin is approved by ANAC. If the approval of the service bulletin can be verified, approval of an AMOC would not be required to use a future revision of the service bulletin. No changes were made to this AD.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Material Under 1 CFR Part 51

ANAC AD 2023-11-01 specifies a detailed inspection of the ODS sensing elements of the airplane bleed lines and replacement, if applicable. In addition, ANAC AD 2023-11-01 specifies re-activating ODS

sensing elements that were deactivated. Also, ANAC AD 2023-11-01 prohibits installing an affected ODS sensing element, unless it is inspected and one face of the connector hex nut is marked.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Costs of Compliance

The FAA estimates that this AD affects 70 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs for Required Actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
5 work-hours × $85 per hour = $425	$0	$425	$29,750

The FAA estimates the following costs to do any on-condition action that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this on-condition action:

Estimated Costs of On-Condition Actions

Labor cost	Parts cost	Cost per product
2 work-hours × $85 per hour = $170	$500	$670

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. 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.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the

States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR part 39

- Air transportation
- Aircraft
- Aviation safety
- Incorporation by reference
- Safety

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

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

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2024-14-08 Embraer S.A. (Type Certificate Previously Held by Yaborã Indústria Aeronáutica S.A.; Embraer S.A.): Amendment 39-22789; Docket No. FAA-2024-0772; Project Identifier MCAI-2023-01203-T.

(a) Effective Date

This airworthiness directive (AD) is effective September 25, 2024.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Embraer S.A. (Type Certificate previously held by Yaborã Indústria Aeronáutica S.A.) Model ERJ 170-100 LR, -100 SE, -100 STD, and -100 SU airplanes, and Model ERJ 170-200 LL, -200 LR, -200 STD, and -200 SU airplanes, certificated in any category, as identified in Agência

Nacional de Aviação Civil (ANAC) AD 2023-11-01, effective November 21, 2023 (ANAC AD 2023-11-01).

(d) Subject

Air Transport Association (ATA) of America Code 36, Pneumatic System.

(e) Unsafe Condition

This AD was prompted by a manufacturing quality escape concerning some overheat detection system (ODS) sensing elements. The FAA is issuing this AD to address defective sensing elements. The unsafe condition, if not addressed, could result in a sensing element not being able to detect a thermal bleed leak, which is a latent failure, and depending on the affected area, may start an ignition source in the fuel tank, which could damage some electronic boxes and expose the wing structure to high temperature gradients and unexpected thermal loads, which could result in reduced structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, ANAC AD 2023-11-01.

(h) Exceptions to ANAC AD 2023-11-01

(1) Where ANAC AD 2023-11-01 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where paragraphs (b)(1), (c)(1), (d)(1), (e)(1), (f)(1), and (g)(1), of ANAC AD 2023-11-01 specify to inspect ODS sensing elements at various locations, this AD requires adding “in accordance with Embraer Service Bulletin 170-36-0027, revision 04, dated September 5, 2023; or later revisions approved by ANAC.”

(3) Where paragraphs (b) through (h) of ANAC AD 2023-11-01 specify on-condition actions based on the results of the ODS sensing element inspections required by paragraphs (b)(1), (c)(1), (d)(1), (e)(1), (f)(1), and(g)(1) of ANAC AD 2023-11-01, this AD requires performing all applicable on-condition actions before further flight after each inspection.

(4) This AD does not adopt paragraph (k) of ANAC AD 2023-11-01.

(i) Parts Returned to Supplier

Where the service information referenced in ANAC AD 2023-11-01 specifies to send removed sensing elements to the supplier, this AD does not include that requirement.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (k) of this AD or email to: *9-ANM-Seattle-ACO-AMOC-Requests@faa.gov*. If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or ANAC; or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraph (j)(2) of this AD, if any service information referenced in ANAC AD 2023-11-01 contains steps in the Accomplishment Instructions or figures that are labeled as RC, the instructions in RC steps, including subparagraphs under an RC step and any figures identified in an RC step, must be done to comply with this AD; any steps including substeps under those steps, that are not identified as RC are recommended. The instructions in steps, including substeps under those steps, not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the instructions identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to instructions identified as RC require approval of an AMOC. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep.

(k) Additional Information

For more information about this AD, contact Joshua Bragg, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: 817-222-5366; email: *joshua.k.bragg@faa.gov*.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Agência Nacional de Aviação Civil (ANAC) AD 2023-11-01, effective November 21, 2023.

(ii) [Reserved]

(3) For ANAC AD 2023-11-01, contact ANAC, Aeronautical Products Certification Branch (GGCP), Rua Dr. Orlando Feirabend Filho, 230—Centro Empresarial Aquarius—Torre B—Andares 14 a 18, Parque

Residencial Aquarius, CEP 12.246-190—São José dos Campos—SP, Brazil; phone 55 (12) 3203-6600; email *pac@anac.gov.br;* website *anac.gov.br/en/*. You may find this ANAC AD on the ANAC website *sistemas.anac.gov.br/certificacao/DA/DAE.asp*.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit *www.archives.gov/federal-register/cfr/ibr-locations*, or email *fr.inspection@nara.gov*.

Issued on July 12, 2024.

Suzanne Masterson,

Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.

[FR Doc. 2024-18634 Filed 8-20-24; 8:45 am]

BILLING CODE 4910-13-P