



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0099; Directorate Identifier 2017-NE-02-AD]

RIN 2120-AA64

Airworthiness Directives; Siemens S.A.S. Smoke Detectors

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Siemens S.A.S. smoke detectors installed on various transport category airplanes. This proposed AD was prompted by a report that the affected smoke detectors failed an acceptance test. This proposed AD would require inspection and replacement of the affected smoke detectors. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this NPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: 202-493-2251.

For service information identified in this NPRM, contact Siemens, Aviation Customer Support, 697 Rue Fourny, 78530 Buc, France; phone: (33) 1 3084 6650; fax: (33) 1 3956 1364. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0099; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Erin Hulverson, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7655; fax: 781-238-7199; email: erin.hulverson@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this NPRM. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0099; Directorate Identifier 2017-NE-02-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this NPRM.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2016-0024, dated January 26, 2016 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

During a maintenance operation, some smoke detectors P/N PMC1102-02 failed an acceptance test, due to a significant degraded optical sensitivity. Investigation results concluded that light-emitting diodes (LED) were abnormally degraded, affecting specific batches where changes occurred in the LED manufacturer production process. Further investigation has determined that the affected LED have been installed on smoke detectors manufactured between November 2010 and January 2013, and on certain repaired units.

This condition, if not corrected, will generate an abnormal ageing of the smoke detector, leading to a decrease of the light intensity capability, possibly resulting in failure to detect smoke and consequent risk of an on-board uncontrolled fire.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0099.

Related Service Information under 1 CFR Part 51

Siemens S.A.S. has issued Service Information Letter (SIL) No. PMC-26-002, Revision No. 1, dated January 2016 and SIL No. PMC-26-003, Revision No. 2, dated February 2016. PMC 26-002 provides a list of serial numbers for affected smoke detectors, P/Ns PMC1102-02, PMC3100-00, and GMC1102-02, known to be installed on Airbus A330 passenger, A330 freighter, and A380 airplanes. PMC 26-003 provides a list

of serial numbers for affected smoke detectors, P/N PMC1102, known to be installed on Boeing B737-400 airplanes that have been converted via supplemental type certificate from a passenger to a freighter airplane. This service information 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.

FAA’s Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of France, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require inspection and replacement of the affected smoke detectors.

Costs of Compliance

We estimate that this proposed AD affects an unknown number of smoke detectors installed on, but not limited to, various aircraft of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product
Inspection	0.2 work-hours X \$85 per hour = \$17	\$0	\$17
Replacement	0.8 work-hours X \$85 per hours = \$68	\$1,285	\$1,353

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.

We are 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

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) 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 Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 (AD):

Siemens S.A.S.: Docket No. FAA-2017-0099; Directorate Identifier 2017-NE-02-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to Siemens S.A.S. smoke detectors, part numbers (P/Ns) PMC1102-02, PMC3100-00, and GMC1102-02, manufactured between October 2010 and January 2013, inclusive; and with serial numbers listed in paragraph 1/D/ of Siemens Service Information Letter (SIL) No. PMC-26-002, Revision No. 1, dated January 2016 or paragraph 1/D/ of Siemens SIL No. PMC-26-003, Revision No. 2, dated February 2016.

(2) This AD also applies to those smoke detectors with P/Ns and serial numbers (S/Ns) listed in Figure 1 to paragraph (c) of this AD; installed on, but not limited to, any airplane, certificated in any category, listed in paragraphs (c)(2)(i) or (ii) of this AD.

Figure 1 to Paragraph (c) of this AD – P/N and S/Ns of Repaired Smoke Detectors

P/N	S/N
PMC1102-2	2129, 2281, 2335, 2343, 2356, 2399, 2411, 2428, 2588, 2731, 2851, 2888, 3658, 3696, 3710, 3729, 3731, 5032, 5039, 5040, 5107, 5216, 5233, 50069, 50075, 50087, 50122, 50204, 50250, 50264, 50268, 50270, 50272, 50366 and 50386
PMC3100-00	201, 208, 213 227, 260, 268, 312, 528, 588, 592, 606, 652, 655, 660, 667, 50037, 50046, 50058, 50060, 50062, 50067, 50070, 50072 and 50090

(i) in production on Airbus A330, A330 freighter, and A380 airplanes;

(ii) in service by supplemental type certificate modification on:

(A) Airbus A319 and A320, and Bombardier CL-600-2B19 (Challenger 850),

Boeing (formerly McDonnell Douglas) DC-9 series 80 airplanes; and

(B) Boeing 737-400 (BDSF), 767, and 747-8 airplanes.

(d) Subject

Joint Aircraft System Component (JASC) Code 2611, Smoke Detection.

(e) Reason

This AD was prompted by a report that the affected smoke detectors failed an acceptance test. We are issuing this AD to prevent failure of the smoke detector, on-board uncontrolled fire, and damage to the airplane.

(f) Compliance

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

(1) Within 30 days after the effective date of this AD, inspect each Siemens smoke detector, or review your maintenance records, to determine if an affected detector is installed.

(2) For affected smoke detectors, replace the detectors within the compliance times specified in Figures 2, 3, and 4 to paragraph (f) of this AD.

Figure 2 to Paragraph (f) of this AD – P/N PMC1102-02 (Cargo Compartments)

Manufacturing Date (month/year)	Compliance Time (after the effective date of this AD)
122010 to 112011 inclusive	Within 5 months
122011 to 012013 inclusive	Within 11 months

Figure 3 to Paragraph (f) of this AD – P/N PMC3100-00 Detectors (Cargo Compartments)

Manufacturing Date (month/year)	Compliance Time (after the effective date of this AD)
032011 to 012012 inclusive	Within 5 months

022012 to 012013 inclusive	Within 11 months
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Figure 4 to Paragraph (f) of this AD – P/N GMC1102-02 (Passenger Cabin or any other location)

Manufacturing Date (month/year)	Compliance Time (after the effective date of this AD)
112010 to 022012 inclusive	Within 24 months
032012 to 122012 inclusive	Within 36 months

(g) Installation Prohibition

From the effective date of this AD, do not install on any airplane a smoke detector:

(1) with a manufacturing date and P/N listed in Figure 2 or 3 to paragraph (f) of this AD;

(2) listed in Figure 4 to paragraph (f) of this AD unless the detector is marked ‘SIL PMC-26-002’.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(i) Related Information

(1) For more information about this AD, contact Erin Hulverson, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7655; fax: 781-238-7199; email: erin.hulverson@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2016-0024, dated January 26, 2016, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2017-0099.

(3) Siemens S.A.S. SIL No. PMC-26-002, Revision No. 1, dated January 2016 and Siemens SIL No. PMC-26-003, Revision No. 2, dated February 2016, can be obtained from Siemens S.A.S. using the contact information in paragraph (i)(4) of this proposed AD.

(4) For service information identified in this proposed AD, contact Siemens, Aviation Customer Support, 697 Rue Fourny, 78530 Buc, France; phone: (33) 1 3084 6650; fax: (33) 1 3956 1364.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on April 7, 2017.

Carlos A. Pestana,
Acting Manager, Engine & Propeller Directorate,
Aircraft Certification Service.
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