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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-56-AD; Amendment 39-13120; AD 2003-08-09]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model MD-11 and -11F Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain McDonnell Douglas Model MD-11 and -11F airplanes, that currently requires a one-time detailed inspection to detect discrepancies of all electrical wiring installations in various areas of the airplane; and corrective actions, if necessary. This amendment requires another identical inspection in additional fuselage stations, and corrective actions, if necessary. This amendment is prompted by a report from the airplane manufacturer that it failed to include 41 inches of fuselage in the previously required inspection. The actions specified by this AD are intended to prevent electrical arcing and/or heat damaged wires due to improper wire installations during manufacture and/or maintenance of the airplane, and consequent fire and smoke in various areas of the airplane.

DATES: Effective May 27, 2003.

The incorporation by reference of Boeing Service Bulletin MD11-24-165, Revision 02, dated March 8, 2001, excluding Evaluation Form, as listed in the regulations, is approved by the Director of the Federal Register as of May 27, 2003.

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of January 8, 2001 (65 FR 75620).

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Brett Portwood, Aerospace Engineer, Systems and Equipment Branch, ANM-130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5350; fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2000-24-15, amendment 39-12022 (65 FR 75620, December 4, 2000), which is applicable to certain McDonnell Douglas Model MD-11 and -11F airplanes, was published in the Federal Register on August 29, 2002 (67 FR 55365). The action proposed to continue to require a one-time detailed inspection to detect discrepancies of all electrical wiring installations in various areas of the airplane; and corrective actions, if necessary. The action also proposed to require another identical inspection in additional fuselage stations, and corrective actions, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Two commenters request that the compliance time for the proposed one-time detailed inspection to detect discrepancies of all electrical wiring installations in the forward passenger compartment from stations Y=1501.000 to Y=5-10.000 be extended from five years to six years. The commenters state that this will allow the inspection to be accomplished during a routine maintenance visit.

The FAA agrees. On May 19, 2000, we issued AD 2000-11-02, amendment 39-11750 (65 FR 34341, May 26, 2000), applicable to certain McDonnell Douglas Model DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, and DC-10-40 series airplanes, and Model MD-11 and -11F airplanes. That AD requires a determination be made of whether, and at what locations, metallized polyethyleneteraphthalate (MPET) insulation blankets are installed, and replacement of MPET insulation blankets with new insulation blankets. The compliance time is within five years after June 30, 2000. Therefore, within approximately three years, the fire and smoke hazard in various areas of those airplanes due to possible ignition of MPET insulation blankets will be significantly reduced.

In light of this factor, we have determined that extending the compliance time of the inspection required by paragraph (b) of this AD by one year will not adversely affect safety, and will allow the inspection to be performed at a base during regularly scheduled maintenance where special equipment and trained maintenance personnel will be available if necessary. Therefore, we have revised paragraph (b) of the final rule to specify a compliance time of within six years after the effective date of this AD.

Explanation of Editorial Change

We have changed the citation for Boeing Service Bulletin MD11-24-165, Revision 02, dated March 8, 2001, throughout this final rule to exclude the Evaluation Form. (The form is intended to be completed by operators and submitted to the airplane manufacturer to provide input on the quality of the service bulletin; however, this AD does not include such a requirement.)

Conclusion

After careful review of the available data, including the comments noted above, we have determined that air safety and the public interest require the adoption of the rule with the changes previously described. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 182 Model MD-11 and -11F airplanes of the affected design in the worldwide fleet. We estimate that 60 airplanes of U.S. registry will be affected by this AD.

Each of the six inspections required by paragraphs (a)(1) through (a)(6) of this AD, which are currently required by AD 2000-24-15, require approximately 10 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of these currently required actions on U.S. operators is estimated to be \$216,000, or \$3,600 per airplane.

The inspection required by paragraph (a)(7) of this AD, which is currently required by AD 2000-24-15, takes approximately 5 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this currently required action on U.S. operators is estimated to be \$18,000, or \$300 per airplane.

The inspection required by paragraph (a)(8) of this AD, which is currently required by AD 2000-24-15, takes approximately 12 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this currently required action on U.S. operators is estimated to be \$43,200, or \$720 per airplane.

The new inspection required by paragraph (b) of this AD will take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection of this AD on U.S. operators is estimated to be \$3,600, or \$60 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions. However, the FAA has been advised that manufacturer warranty remedies are available for labor costs associated with accomplishing the actions required by this proposed AD. Therefore, the future economic cost impact of this rule on U.S. operators may be less than the cost impact figure indicated above.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by removing amendment 39-12022 (65 FR 75620, December 4, 2000), and by adding a new airworthiness directive (AD), amendment 39-13120, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-08-09 McDonnell Douglas: Amendment 39-13120. Docket 2001-NM-56-AD. Supersedes AD 2000-24-15, Amendment 39-12022.

Applicability: Model MD-11 and -11F airplanes, manufacturer's fuselage numbers 0447 through 0449 inclusive, 0451 through 0464 inclusive, 0466 through 0489 inclusive, 0491 through 0517 inclusive, 0519 through 0552 inclusive, 0554 through 0556 inclusive, 0557, 0558 through 0633 inclusive, and 0635; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

Note 2: The FAA recommends that the actions required by this AD be accomplished immediately after accomplishing the replacement of metallized polyethyleneterephthalate (MPET) insulation blankets, as required by AD 2000-11-02, amendment 39-11750 (65 FR 34341, May 26, 2000).

To prevent electrical arcing and/or heat damaged wires due to improper wire installations during manufacture and/or maintenance of the airplane, and consequent fire and smoke in various areas of the airplane, accomplish the following:

Restatement of Certain Requirements of AD 2000-24-15

One-Time Detailed Inspection

(a) Within 5 years after January 8, 2001 (the effective date of AD 2000-24-15, amendment 39-12022), accomplish the actions specified in paragraphs (a)(1), (a)(2), (a)(3), (a)(4), (a)(5), (a)(6), (a)(7), and (a)(8) of this AD, as applicable.

(1) For all airplanes: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the center and aft cargo compartments from stations Y=1521.000 to Y=2007.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment

Instructions of McDonnell Douglas Service Bulletin MD11-24-171, dated April 4, 2000; or Revision 01, dated November 6, 2000.

Note 3: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc. may be used. Surface cleaning and elaborate access procedures may be required."

(2) For all airplanes: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the forward cargo compartment from stations Y=595.000 to Y=673.500, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-170, dated April 12, 2000; or Revision 01, dated November 6, 2000.

(3) For all airplanes: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the forward passenger compartment from stations Y=5-11.000 to Y=2007.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-167, dated April 4, 2000; or Boeing Service Bulletin MD11-24-167, Revision 01, including Appendix 1, dated November 6, 2000.

(4) For all airplanes: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the forward passenger compartment from stations Y=756.000 to Y=1501.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-165, dated April 4, 2000; or Boeing Service Bulletin MD11-24-165, Revision 01, including Appendix, dated November 6, 2000; or Revision 02, including Appendix, dated March 8, 2001, excluding Evaluation Form.

(5) For all airplanes: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the forward passenger compartment from stations Y=465.000 to Y=755.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-163, dated April 4, 2000; or Boeing Service Bulletin MD11-24-163, Revision 01, including Appendix 1, dated November 6, 2000.

(6) For all airplanes: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the flight compartment and forward drop ceilings areas from stations Y=275.000 to Y=464.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-188, dated April 28, 2000; or Revision 01, dated November 6, 2000.

(7) For airplanes having manufacturer's fuselage numbers 0447 through 0449 inclusive, 0451 through 0464 inclusive, 0466 through 0489 inclusive, 0491 through 0517 inclusive, 0519 through 0552 inclusive, 0554 through 0556 inclusive, 0557, and 0558 through 0633 inclusive: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the center accessory compartment from stations Y=6-50.000 to Y=1179.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-161, dated April 10, 2000; or Revision 01, dated November 6, 2000.

(8) For airplanes having manufacturer's fuselage numbers 0447 through 0449 inclusive, 0451 through 0464 inclusive, 0466 through 0489 inclusive, 0491 through 0517 inclusive, 0519 through 0552 inclusive, 0554 through 0556 inclusive, 0557, and 0558 through 0633 inclusive: Perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the main avionics compartment from stations Y=275.000 to Y=464.000, in accordance with paragraph 3.B., "Work Instructions," of the Accomplishment Instructions of McDonnell Douglas Service Bulletin MD11-24-162, dated April 10, 2000; or Revision 01, dated November 6, 2000.

New Actions Required by This AD

One-Time Detailed Inspection

(b) For Group 2 airplanes identified in Boeing Service Bulletin MD11-24-165, Revision 02, including Appendix, dated March 8, 2001, excluding Evaluation Form: Within 6 years after the effective date of this AD, perform a one-time detailed inspection to detect discrepancies of all electrical wiring installations in the forward passenger compartment from stations Y=1501.000 to Y=5-10.000, in accordance with paragraph 3.B., "Work Instructions," "Group 2," of the Accomplishment Instructions of Boeing Service Bulletin MD11-24-165, Revision 02, dated March 8, 2001, excluding Evaluation Form.

Corrective Action

(c) If any discrepancy is detected during the inspection required by paragraphs (a)(1) through (a)(8) of this AD or paragraph (b) of this AD, before further flight, accomplish the applicable corrective action(s) in accordance with the Accomplishment Instructions of the following applicable service bulletins, except as provided in paragraphs (d) and (e) of this AD, as applicable:

- (1) McDonnell Douglas Service Bulletin MD11-24-171, dated April 4, 2000; or Revision 01, dated November 6, 2000;
- (2) McDonnell Douglas Service Bulletin MD11-24-170, dated April 12, 2000; or Revision 01, dated November 6, 2000;
- (3) McDonnell Douglas Service Bulletin MD11-24-167, dated April 4, 2000;
- (4) Boeing Service Bulletin MD11-24-167, dated April 4, 2000; or Revision 01, including Appendix, dated November 6, 2000;
- (5) McDonnell Douglas Service Bulletin MD11-24-165, dated April 4, 2000;
- (6) Boeing Service Bulletin MD11-24-165, Revision 01, including Appendix, dated November 6, 2000;
- (7) McDonnell Douglas Service Bulletin MD11-24-163, dated April 4, 2000;
- (8) Boeing Service Bulletin MD11-24-163, Revision 01, including Appendix 1, dated November 6, 2000;
- (9) McDonnell Douglas Service Bulletin MD11-24-188, dated April 28, 2000; or Revision 01, dated November 6, 2000;
- (10) McDonnell Douglas Service Bulletin MD11-24-161, dated April 10, 2000; or Revision 01, dated November 6, 2000; or
- (11) McDonnell Douglas Service Bulletin MD11-24-162, dated April 10, 2000; or Revision 01, dated November 6, 2000;
- (12) Boeing Service Bulletin MD11-24-165, Revision 02, including Appendix, dated March 8, 2001, excluding Evaluation Form.

Note 4: Where there are differences between the AD and the referenced service bulletins, the AD prevails.

(d) If no gap between the wire bundle and blanket can be seen where the wiring is routed over the structural frames when pressure is applied to the blanket, before further flight, reposition wires or clamps so that a gap can be seen when pressure is applied to the blanket.

(e) If any screw terminal of the flag lug bus bar is loose, before further flight, retorque to 10 to 11 inch-pounds.

Alternative Methods of Compliance

(f)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

Note 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

(2) Alternative methods of compliance, approved previously in accordance with AD 2000-24-15, amendment 39-12022, are approved as alternative methods of compliance with this AD.

Special Flight Permits

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(h) Unless otherwise specified in this AD, the actions shall be done in accordance with the applicable service bulletins listed in the following table:

TABLE.—APPLICABLE SERVICE BULLETINS

Service bulletin	Revision level	Date
Boeing Service Bulletin MD11-24-163, including Appendix	Revision 01	November 6, 2000.
Boeing Service Bulletin MD11-24-165, including Appendix 1	Revision 01	November 6, 2000.
Boeing Service Bulletin MD11-24-165, including Appendix, excluding Evaluation Form	Revision 02	March 8, 2001.
Boeing Service Bulletin MD11-24-167, including Appendix	Revision 01	November 6, 2000.
McDonnell Douglas Service Bulletin MD11-24-161	Original	April 10, 2000.
McDonnell Douglas Service Bulletin MD11-24-161	Revision 01	November 6, 2000.
McDonnell Douglas Service Bulletin MD11-24-162	Original	April 10, 2000.
McDonnell Douglas Service Bulletin MD11-24-162	Revision 01	November 6, 2000.
McDonnell Douglas Service Bulletin MD11-24-163	Original	April 4, 2000.
McDonnell Douglas Service Bulletin MD11-24-165	Original	April 4, 2000.
McDonnell Douglas Service Bulletin MD11-24-167	Original	April 4, 2000.
McDonnell Douglas Service Bulletin MD11-24-170	Original	April 12, 2000.
McDonnell Douglas Service Bulletin MD11-24-170	Revision 01	November 6, 2000.
McDonnell Douglas Service Bulletin MD11-24-171	Original	April 4, 2000.
McDonnell Douglas Service Bulletin MD11-24-171	Revision 01	November 6, 2000.
McDonnell Douglas Service Bulletin MD11-24-188	Original	April 28, 2000.
McDonnell Douglas Service Bulletin MD11-24-188	Revision 01	November 6, 2000.

(1) The incorporation by reference of Boeing Service Bulletin MD11-24-165, Revision 02, including Appendix, dated March 8, 2001, excluding Evaluation Form, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of the following service bulletins labeled original, MD11-24-161, MD11-24-162, MD11-24-163, MD11-24-165, MD11-24-167, MD11-24-170, MD11-24-171, and MD11-24-188; and labeled Revision 1, MD11-24-163 including Appendix, MD11-24-165 including Appendix 1, MD11-24-167 including Appendix, MD11-24-162, MD11-24-161, MD11-24-170, MD11-24-171, and MD11-24-188; as stated in the table above; were approved previously by the Director of the Federal Register as of January 8, 2001 (65 FR 75620, December 4, 2000).

(3) Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(i) This amendment becomes effective on May 27, 2003.

Issued in Renton, Washington, on April 10, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-9428 Filed 4-18-03; 8:45 am]

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