[Federal Register: April 25, 2003 (Volume 68, Number 80)]
[Rules and Regulations]
[Page 20336-20339]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr25ap03-3]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NM-42-AD; Amendment 39-13127; AD 2003-08-14]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain McDonnell Douglas airplane models. This action requires revising the airplane flight manual (AFM) to include new operating limitations, installing placards to advise the flightcrew of certain minimum fuel levels to be maintained in the fuel tanks, and deactivating certain auxiliary fuel tanks. For fuel tanks that are not deactivated, this AD also requires replacement of certain existing fuel boost/transfer pumps with pumps inspected–and modified, if necessary–
per certain procedures. Accomplishment of this replacement will allow operators to remove the operating limitations from the AFM, remove the placards, and reactivate the auxiliary fuel tanks (if deactivated). This action is necessary to prevent electrical arcing in the connector for a fuel boost/transfer pump, which could result in a fire or explosion of a fuel tank. This action is intended to address the identified unsafe condition.

DATES: Effective May 12, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 12, 2003.

Comments for inclusion in the Rules Docket must be received on or before June 24, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2003-NM-42-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2003-NM-42-AD" in the subject line and need not be submitted in triplicate. Comments sent via

the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

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 FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; 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: Philip Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5263; fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: The FAA has received reports indicating that chafed stator lead wires have been found on certain fuel boost/transfer pumps installed on all McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes. Investigation has revealed that this chafing is due to improper routing of the lead wires connecting the pumping unit stator to the pump connector during assembly of the pump. This improper routing could cause chafing of the lead wires, which could lead to a short circuit and electrical arcing, and result in a fire or explosion of the fuel tank.

Other Relevant Rulemaking

The FAA previously issued AD 2000-22-21, amendment 39-11969 (65 FR 69658, November 20, 2000). That AD applies to the same airplanes as this AD and requires revising the airplane flight manual (AFM) to ensure that the flightcrew is advised of appropriate procedures for disabling certain fuel pump electrical circuits following failure of a fuel pump electrical connector. For certain airplanes, that AD also requires revising the AFM to prohibit resetting of tripped fuel pump circuit breakers. Those actions are intended to prevent continued arcing following a short circuit of a fuel pump electrical connector, which could damage the conduit that protects the power lead wire inside the fuel tank and result in the creation of a potential ignition source in the fuel tank.

We have also previously issued AD 2002-13-10, amendment 39-12798 (67 FR 45053, July 8, 2002), which applies to certain McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes. That AD requires repetitive tests for electrical continuity and resistance; repetitive inspections to detect discrepancies of the fuel boost/transfer pump connectors; and corrective actions, if necessary. (Accomplishment of these actions necessitates removal of the fuel boost/transfer pumps from the airplane.) Those actions are intended to prevent arcing of connectors in the fuel boost/transfer pump circuit, which could result in a fire or explosion of the fuel tank. (We have also issued a separate notice of proposed rulemaking, Rules Docket No. 2002-NM-134-AD, that would require these same actions on one additional McDonnell Douglas Model DC-10-30 airplane that was omitted from the service information referred to in AD 2002-13-10.)

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletins DC10-28A240 and MD11-28A121, both dated January 6, 2003. These service bulletins describe operating limitations relating to maintaining minimum fuel levels in the airplane's fuel tanks. These service bulletins also describe procedures for performing maintenance actions on the fuel boost/transfer pumps, installing placards

to ensure that the flightcrew is informed of minimum fuel levels that must be maintained in the fuel tanks, and deactivating certain auxiliary fuel tanks.

These service bulletins also refer to a "terminating action" to be accomplished per Boeing Alert Service Bulletins DC10-28A239 or MD11-28A120, both dated December 3, 2002; as applicable. The terminating action described in these service bulletins involves removing the installed fuel boost/transfer pumps; performing a detailed inspection of the pumps to determine whether certain lead wires are routed improperly; modifying the fuel boost/transfer pumps if the wires are routed improperly; and installing inspected and, if necessary, modified pumps on the airplane. Accomplishing these actions eliminates the need for the operating limitations, placards, and deactivation of the fuel tanks described previously. Boeing Alert Service Bulletins DC10-28A239 and MD11-28A120 refer to Crane Hydro-Aire Service Bulletin 60-847-28-2, dated December 2, 2002, as the appropriate source of service information for accomplishing the inspection–and modification, if necessary–of the fuel boost/transfer pumps.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to prevent electrical arcing in the connector for the fuel boost/transfer pump, which could result in a fire or explosion of the fuel tank. This AD requires accomplishment of the actions specified in the applicable service bulletins described previously, except as discussed below.

Differences Between Service Bulletins and This AD

While Boeing Alert Service Bulletins DC10-28A240 and MD11-28A121 contain procedures (under the heading "Fuel Tank Maintenance") for defueling the airplane prior to deactivating the fuel boost/transfer pumps, this AD does not require these procedures to be followed. We have determined that operators' standard procedures for such defueling will provide an acceptable level of safety.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the 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 that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2003-NM-42-AD." The postcard will be date stamped and returned to the commenter.

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.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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 adding the following new airworthiness directive:

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).

2003-08-14 McDonnell Douglas: Amendment 39-13127. Docket 2003-NM-42-AD.

Applicability: All Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F, MD-11 and MD-11F airplanes; 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 (e) 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.

To prevent electrical arcing in the connector for a fuel boost/transfer pump, which could result in a fire or explosion of a fuel tank, accomplish the following:

Compliance Time for Initial Action

(a) Do the actions specified in paragraph (a)(1) or (a)(2) of this AD.

Alternative 1: Airplane Flight Manual Revision, Placard Installation, and Fuel Tank Deactivation.

(1) Within 45 days after the effective date of this AD, do the actions specified in paragraphs (a)(1)(i), (a)(1)(ii), and (a)(1)(iii) of this AD, per the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-28A240, dated January 6, 2003 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes); or Boeing Alert Service Bulletin MD11-28A121, dated January 6, 2003 (for Model MD-11 and MD-11F airplanes); as applicable.

(i) Revise the Operating Limitations section of the airplane flight manual (AFM) to include the applicable recommended operating limitations specified in section 3.B.1.a., 3.B.1.b., 3.B.1.c., 3.B.1.d. or 3.B.1.e. of Boeing Alert Service Bulletin DC10-28A240; or section 3.B.1.a. of Boeing Alert Service Bulletin MD11-28A121; as applicable.

(ii) Install placards to advise the flightcrew of certain minimum fuel levels that must be maintained in certain fuel tanks, as specified in section 3.B.1.f. of Boeing Alert Service Bulletin DC10-28A240 or section 3.B.1.b. of Boeing Alert Service Bulletin MD11-28A121, as applicable.

(iii) Deactivate the upper auxiliary fuel tank, lower auxiliary fuel tank, aft auxiliary fuel tank, tail (horizontal stabilizer) fuel tank, and ER forward auxiliary tank, as applicable, as specified in section 3.B.2. of Boeing Alert Service Bulletin DC10-28A240 or MD11-28A121, as applicable.

Alternative 2: Replacement of Pumps.

(2) Within 45 days after the effective date of this AD, do paragraph (c) of this AD.
Fuel Tank Deactivation: Resetting Circuit Breakers.

(b) Circuit breakers that are opened to deactivate a fuel tank per this AD may be reset without accomplishing the continuity and resistance test of the fuel pump connector required by AD 2002-13-10, amendment 39-12798, provided that there has been no reported problem with the fuel boost/transfer pump associated with the fuel tank.

Replacement of Pumps

(c) For any fuel tank that is not deactivated per section 3.B.2. of Boeing Alert Service Bulletin DC10-28A240 or Boeing Alert Service Bulletin MD11-28A121, both dated January 6, 2003, as applicable, as specified in paragraph (a)(1)(iii) of this AD: Within 90 days after the effective date of this AD, except as provided by paragraph (a)(2) of this AD, replace any fuel boost/transfer pump having Hydro-Aire part number 60-847-1A, 60-847-2, or 60-847-3, with a serviceable fuel boost/transfer pump that has been inspected and modified per Crane Hydro-Aire Service Bulletin 60-847-28-2, dated December 2, 2002. Do this replacement per Boeing Alert Service Bulletins DC10-28A239, dated December 3, 2002 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes); or MD11-28A120, dated December 3, 2002 (for Model MD-11 and MD-11F airplanes); as applicable. Once the replacement has been accomplished, or once it has been determined that the fuel boost/transfer pump does not have an affected Hydro-Aire part number, as identified above, the AFM revisions and placards specified in paragraph (a)(1)(i) and (a)(1)(ii) of this AD may be removed, and the fuel tanks that were deactivated as specified in paragraph (a)(1)(iii) of this AD may be reactivated.

Parts Installation and Fuel Tank Reactivation

(d)(1) As of the effective date of this AD, no person may install a fuel boost/transfer pump having Hydro-Aire part number 60-847-1A, 60-847-2, or 60-847-3, unless it has been inspected and modified, as applicable, per Crane Hydro-Aire Service Bulletin 60-847-28-2, dated December 2, 2002.

(2) As of the effective date of this AD, no person may reactivate a fuel tank deactivated per section 3.B.2. of Boeing Alert Service Bulletin DC10-28A240 or Boeing Alert Service Bulletin MD11-28A121, both dated January 6, 2003, as applicable, as specified in paragraph (a)(1)(iii) of this AD, unless paragraph (c) of this AD has been accomplished on the fuel boost/transfer pump for that tank.

Note 2: AD 2002-13-10, amendment 39-12798, requires repetitive tests for electrical continuity and resistance, and repetitive inspections to detect discrepancies of the fuel boost/transfer pump connectors, and any applicable corrective actions. Accomplishment of these actions necessitates removal of the fuel boost/transfer pumps from the airplane. After the effective date of this AD, whenever the fuel boost/transfer pumps are removed from the airplane for accomplishment of the tests and inspections required by AD 2002-23-10, they must be inspected and found to have properly routed lead wires before reinstallation, as specified in paragraph (c) of this AD.

Alternative Methods of Compliance

(e) 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 or Operations Inspector, as applicable, who may add comments and then send it to the Manager, Los Angeles ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(f) 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

(g) The actions shall be done in accordance with Boeing Alert Service Bulletin DC10-28A239, dated December 3, 2002, and Boeing Alert Service Bulletin DC10-28A240, dated January 6, 2003; or Boeing Alert Service Bulletin MD11-28A120, dated December 3, 2002, and Boeing Alert Service Bulletin MD11-28A121, dated January 6, 2003; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. 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; 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

(h) This amendment becomes effective on May 12, 2003.

Issued in Renton, Washington, on April 17, 2003.
Ali Bahrami,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-9981 Filed 4-24-03; 8:45 am]
BILLING CODE 4910-13-P