(l) 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.

(m) Certain actions shall be done in accordance with McDonnell Douglas DC–10 Service Bulletin 54–74, dated December 21, 1979. 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 McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Department C1–L51 (2–60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, 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.

(n) This amendment becomes effective on December 11, 1996.

Issued in Renton, Washington, on October 17, 1996.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 96–27241 Filed 11–5–96; 8:45 am]

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14 CFR Part 39

[Docket No. 95–NM–214–AD; Amendment 39–9798; AD 96–22–10]

RIN 2120–AA64

Airworthiness Directives; McDonnell Douglas Model DC–9 and DC–9–80 Series Airplanes, and Model MD–88 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all McDonnell Douglas DC–9 and DC–9–80 series airplanes, and Model MD–88 airplanes, that requires repetitive leak checks of the lavatory drain system and repair, if necessary; provides for the option of revising the FAA-approved maintenance program to include a schedule of leak checks; requires the installation of a cap on the flush/fill line; and requires replacement or modification of the vent system piping. This amendment is prompted by continuing reports of damage to engines and airframes, separation of engines from airplanes, and damage to property on the ground, caused by ''blue ice'' that forms from leaking lavatory drain systems on transport category airplanes and subsequently dislodges from the airplane fuselage. The actions specified by this AD are intended to prevent such damage associated with the problems of ''blue ice.''

DATES: Effective December 11, 1996. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 11, 1996.

ADDRESSES: The service information referenced in this AD may be obtained from McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Department C1–L51 (2–60). 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, Transport Airplane Directorate, 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: Walter Eierman, Aerospace Engineer, Systems and Equipment Branch, ANM–130L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (310) 627–5336; fax (310) 627–5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all McDonnell Douglas DC–9 and DC–9–80 series airplanes, and Model MD–88 airplanes was published in the Federal Register on December 26, 1995 (60 FR 66764). That action proposed to:

1. require repetitive leak checks of the lavatory drain system and repair, if necessary;

2. provide for the option of revising the FAA-approved maintenance program to include a schedule of leak checks;

3. require the installation of a cap on the flush/fill line; and

4. require replacement or modification of the vent system piping.

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

Support for the Proposal

Two commenter support the proposed rule.

Request to Exclude All-Cargo Configured Airplanes from Applicability

One commenter requests that the applicability of the proposal be revised to exclude airplanes operating in an all-cargo configuration, where lavatories and lavatory fill/drain systems have been removed.

The FAA concurs. This final rule requires leak checks of the lavatory/fill drain system. However, if no such system is installed on the airplane then, obviously, the requirements of the AD cannot be performed and, likewise, should not be required. As long as there is one lavatory drainage system installed on the airplane, the requirements of this AD would still apply. To make this eminently clear to affected operators, the FAA has revised the applicability of the final rule to clarify that the AD applies to airplanes that are equipped with a lavatory drainage system.

Request for Permission to Use Alternative Check Valves on Flush/Fill Line

Two commenters request that the proposed rule be revised to allow the use of Monogram 4803–86 series check valves on flush/fill lines as an alternative to the specified lever/lock cap. These commenters point out that Monogram check valves with similar design characteristics were approved previously by the FAA as an acceptable alternative item for compliance with a similar proposed AD that is applicable to Boeing Model 737 series airplanes [reference Docket No. 95–NM–111–AD (60 FR 55673, November 2, 1995)].

The FAA concurs with these commenters' request. Paragraphs (a)(5), (b)(3), and (d) of the final rule have been revised to specify this. Additionally, paragraphs (a)(5) and (b)(3) of the final rule have been revised to provide the necessary instructions for replacing the O-rings associated with the Monogram 4803–86 series check valve, and for testing the check valve for proper operation.

Request to Increase Leak Check Interval for Certain Shaw Aero Valves

One commenter requests that proposed paragraphs (a)(2) and (b)(2)(ii) be revised to allow the following Shaw Aero valves to be leak checked at 1,000-hour intervals:

- 331 series, all serial numbers
- 332 series, all serial numbers

The commenter states that these valves have been accepted previously by the FAA for a 1,000-hour leak check interval either in accordance with AD 94–23–10, which is applicable to Boeing

Model 727 series airplanes; or a similar proposed rule applicable to Boeing Model 737 series airplanes (reference Docket No. 95–NM–111–AD).

The FAA concurs. Paragraphs (a)(2) and (b)(2)(ii) of this final rule have been revised to include these part-numbered valves in the requirements for leak checks at 1,000-hour intervals.

Request to Increase Leak Check Interval for Certain Kaiser Valves

One commenter requests that the proposed repetitive leak check interval of 1,000 hours for Kaiser valves having part numbers 0218–0026 and 0218–0032, be increased to 1,500 hours. As justification for this request, the commenter submits qualification and test data.

The FAA cannot concur, since insufficient data were submitted to support a longer inspection interval. Paragraph (g) of the final rule provides guidance as to the specific type of data needed to justify extensions to the leak check intervals set forth in this AD.

Two other commenters request that the proposed repetitive leak check interval of 1,500 hours for Kaiser valves having part number 2651–329 series, be increased to 4,500 hours. These commenters state that the longer interval has been proposed for this same valve in another proposed AD that is applicable to Boeing Model 737 series airplanes (reference Docket No. 95–NM–111–AD).

The FAA concurs with these commenters' request, since this valve previously was found to be acceptable for a 4,500-hour leak check interval. Paragraph (a)(1) of this final rule has been revised accordingly.

Request to Increase Leak Check Interval for Certain Pneudraulics Valves

One commenter requests that the proposed leak check interval of 1,000 hours for Pneudraulics valves having part number 9527, be increased to 2,000 hours. The commenter states that, to date, it has accumulated over 580,000 flight hours using this Pneudraulics valve on its fleet of airplanes, and there have been only two cases of leaking reported. In both cases, the valves were inspected and found to be serviceable without repair. This in-service experience should justify a longer repetitive check interval.

The FAA does not concur, since insufficient data were submitted to support a longer inspection interval. Paragraph (g) of the final rule provides guidance as to the specific type of data needed to justify extensions to the leak check intervals set forth in this AD.

Request to Revise Procedure for Dump Valve Leak Check

One commenter requests that the proposed rule be revised to change the procedure for conducting a dump valve leak check so that less fluid can be used. This commenter points out that NOTE 2 of the proposal states that this leak check is to be accomplished with water/rinsing fluid to a level at least 4 inches above the flapper in the bowl. However, the commenter notes that this is 2 inches more fluid than is needed for similar leak checks of Boeing Model 727 series airplanes required by AD 94–23–10 [amendment 39–9073 (59 FR 59124, November 16, 1994)]. The commenter maintains that the same level of fluid should be used so that all leak checks are standardized for all airplanes.

The FAA does not concur with the commenter's request. The procedure to fill the toilet bowl to 4 inches above the flapper (approximately ½ full) is also meant to check the tank and the rinse line check valves. The FAA finds that performing the test using less fluid does not do as complete and adequate a job as is necessary to meet the intent of this AD.

Request for Clarification of Leak Check Procedures

One commenter considers that proposed paragraphs (a)(2)(i) and (a)(2)(ii) contradict each other. The former paragraph would require that both the inner door/closure device and the outer cap/door must be leak checked; while the latter paragraph states that, in lieu of pressure testing, the outer seal and seal surface may be visually inspected for damage on service panel valves that have an inner seal. The commenter states that, to leak check the outer cap, maintenance personnel will have to remove the inner seal, thus ruining the seal in the process, and there is no guarantee that the tests would be performed in a particular sequence to avoid this. The commenter contends that a leak check on the outer seal would negate the test on the inner seal, and that only a visual inspection of the outer seal is necessary.

The FAA does not concur with the commenters statement that the two paragraphs contradict each other. Paragraph (a)(2)(i) calls for a leak check of each closure device. For certain types of service panel valves, paragraph (a)(2)(ii) merely provides an alternative to that leak check, since it states that an inspection of the seal may be performed *in lieu* of the leak check; that paragraph does not require that both actions be performed.

Request for Procedures for Performing Leak Check of Lavatory Vent System

One commenter requests that proposed paragraph (e), which would require a leak check of the lavatory vent system, be revised to include procedures for how these leak checks are to be performed.

The FAA concurs that inclusion of such procedures is necessary. NOTE 2 has been revised to add this information, and a new NOTE 7 has been included, which also contains these procedures.

Request to Delete Alternative Visual Inspections

One commenter requests that the proposal be revised to delete the alternative that would allow operators only to visually inspect the cover (outer) seal of lavatory drain valves for wear or damage, rather than to leak check them. This commenter considers it important that leak testing of the drain valves should be performed both on the internal portions of the valve and on the cap portions of the valve as well. This commenter states that one of the primary emphases of addressing the problems of blue ice has been the need for a dual sealing valve; by using a dual sealing valve, the reliability of a drain valve is doubled, and the potential for blue ice incidents is significantly reduced. However, if the FAA would permit only a visual inspection of the outer seal, rather than an actual leak test, the benefit of the dual sealing valve is lost and safety is compromised because ''the potential for a failure through the outer seal that has not been tested rises exponentially as it is not being tested.'' The commenter considers that the only reason for allowing the visual inspection (rather than a leak test) is to provide a cost savings to the airlines.

The FAA does not concur with the commenter's request to delete the provision for the alternative procedure. The maintenance procedures required by this final rule, as well as the intervals at which maintenance is required, were developed in consideration of the design and known service experience of the many designs used in lavatory systems. The alternative procedure for the visual inspection is allowed based on the fact that some valves have an inner seal that is closed when the outer cap is closed; for this type of valve, leakage from the outer cap could only be checked if the inner seal were removed since, when the inner seal is correctly in place, it will prevent any fluid from reaching the outer cap seal. It is for this type of valve that the AD provides the

alternative to allow operators to inspect the seal and seal surface of the outer cap seal in lieu of performing a leak check of the outer seal. The FAA's ultimate determination with regard to this provision was not made to provide a cost savings to airlines (as suggested by the commenter), but to allow procedures to be accomplished that will provide an acceptable level of safety.

Request to Increase Leak Checks at Flush/Fill Port

One commenter considers that an upstream device with positive shut-off and anti-siphon features would eliminate the ''blue ice'' that occurs at the flush/fill port. The commenter considers that, until such time as a new device can be tested and approved, the leak checks and inspections of that port should be increased. As further indication of a need for more inspections, the commenter states that the currently installed flush/fill caps and lever lock cap can be damaged or removed by maintenance personnel; additional inspections would ensure that these discrepancies are identified and corrected in a timely manner.

The FAA does not concur with the commenter's request. The FAA considers that action is necessary at this time to improve leakage conditions at the flush/fill port. The lever lock cap required by this AD action will contribute to this goal by being less likely to be left unclosed, more difficult to remove, and less prone to falling off, than the conventional turn cap. While other suitable devices currently may be under development, the FAA finds no justification for delaying this AD action while waiting for their availability. However, as those devices become available, the FAA may consider requests for the use of them as alternative methods of compliance, under the provisions of paragraph (g) of this final rule. As for the inspections intervals, the FAA developed them based on the best data obtainable to date; however, if blue ice originating from this leak path becomes increasingly problematic, the FAA may consider further rulemaking to adjust the inspection interval as appropriate.

Request to Require Same Maintenance Program for All Operators

One commenter requests that any future extensions of leak check intervals should be based on performance of the hardware involved, not on the performance of an individual operator's maintenance program. This commenter requests that the FAA consider requiring the same maintenance program (relative to the leak checks) for all operators; an individual maintenance program should not influence the leak check extensions that the FAA gives to any particular valve. While it is important to have a proper maintenance program to ensure reliability of the aircraft and the lavatory system, the commenter considers it more important to realize that a quality valve (regardless of the maintenance program) is what increases reliability—not the ''maintenance program'' itself. A quality valve is not affected by the service personnel. The best of maintenance programs can be compromised for any number of reasons due to necessary human involvement; however, hardware, if properly designed has a built-in safe integrity.

The FAA does not concur with the commenter's request. The FAA considers that hardware design and maintenance are both factors in the effective prevention of leakage at the lavatory service panel. This AD has been structured to give ''credit'' for both of these factors in determining appropriate leak check intervals. Although the FAA could require the same maintenance program of all airlines, it recognizes that varying aspects of each airlines' operational environment and the human factors associated with maintenance procedures means that equal results for all airlines would not necessarily result. This AD allows airlines who have proven, effective maintenance programs to obtain ''credit'' (i.e., in the form of increased leak check intervals) for their programs.

Request to Require Leak Checks of All Outer Cap/Door Seals

One commenter requests that the proposal be revised to require that all seals that could potentially come into contact with the effluent that causes blue ice be leak tested. The commenter points specifically to proposed paragraph (b)(2)(iii), which states that, if an operator uses ''donut'' -type valves, both the donut and the outer cap/door seal must be leak checked. Other provisions of the proposed rule, however, would require only a visual inspection of the outer cap/door seal on other types of valves. This commenter states that it is not in the best interest of eliminating blue ice not to leak check every seal.

The FAA acknowledges this commenter's concern, and does not disagree with the suggestion that testing every seal could lower the possibility of the formation of blue ice. It is obvious that more testing, either by testing of every seal or by increasing the frequency of tests, theoretically could reduce the potential for blue ice to occur. However, in this AD, the FAA has attempted to establish a reasonable test program for each configuration of valve, in consideration of the unique design of the individual valve assemblies and the service history data relative to each valve. The FAA has determined that the program set forth in this AD will achieve an acceptable level of safety with regard to the problems associated with blue ice.

Request to Require that ''Donut'' Assemblies Be Removed from Service

One commenter requests that the proposal be revised to require that all ''donut''-type valve assemblies be removed from service. This commenter contends that this type of valve has a long history of poor performance, and it is commonplace for the ''donut'' component of the valve not to be installed (missing), thereby rendering the valve inoperative. The commenter states that during ground service, the donut component sometimes washes into the lavatory service cart and is not replaced into the lavatory drain panel valve until the next inspection. The commenter maintains that blue ice will continue to fall if ''this archaic approach to valve technology continues to be used.''

The FAA does not concur with the commenter's request. The FAA acknowledges that the ''donut'' design is neither the latest in technology standards nor the most effective valve assembly. However, based on the best data obtainable to date, the FAA has determined that a leak check of ''donut''-type valve assemblies at intervals of 200 flight hours will ensure that the valve is monitored adequately to provide an acceptable level of safety. [This leak check requirement is stated in paragraph (a)(4) of the final rule.] The FAA is continuing to review the on-going service history of these valves, and may consider further rulemaking to require their removal from service if future data justify such an action.

Request to Require Standard Nomenclature for Primary vs. Secondary Seals

One commenter requests that the FAA require all valve manufacturers to use standard nomenclature for primary and secondary seals. This commenter asserts that the first seal that the effluent comes in contact with should be referred to as the ''primary'' seal; the cover seal should be referred to as the ''secondary'' seal. This commenter states that certain valve manufacturers have begun to call the cover seal on their valves ''primary'' seals. This can create problems, since

paragraph (b)(2)(i)(B) of the proposal would require that the outer cap/door seal is only visually inspected and, thus, the ''primary'' seal on this manufacturer's assemblies is never pressure tested. The commenter maintains that the FAA should not allow the primary seal to go untested.

The FAA acknowledges this commenter's concerns, but finds that no change to the AD is necessary. The FAA does not control the nomenclature that manufacturers choose to identify seals in their valve assemblies; further, the FAA does not consider it appropriate that what a manufacturer chooses to call a seal should be used to determine the actions required by this AD. The FAA finds that the wording used in the requirement for the visual inspection is very specific as to which component of the valve assembly is to be inspected (the service panel drain valve outer cap/door seal and the inner seal if the valve has an inner door/closure device with a second positive seal). The requirement deliberately does not contain the words ''primary'' or ''secondary'' in referring to seals, since those terms are not specific and, as the commenter points out, are used differently by different manufacturers.

Request to Revise Data Collection Guidance

One commenter requests that the data collection guidance iterated in proposed paragraph (c) be revised. Specifically, the commenter asks that language contained in proposed paragraph (c)(8) that refers to removal of debris done as part of maintenance be modified to reflect more specifically what occurs during normal ground servicing. The commenter states that normally the only debris that is removed during ground servicing is what could be called ''major'' blockage items; simple things, such as toilet paper or other minor debris, are left in place as part of normal ground maintenance. In light of this, the tested condition from which data is gathered should represent the condition that the system would be in during normal operations. The commenter requests that paragraph (c)(8) be changed to specify this.

The FAA concurs. The commenter's suggested revision will provide useful clarification of the intent of the requirement. Paragraph (c)(8) of the final rule has been revised to specify that only major blockages should be removed prior to a leak check test, and that minor debris removal that is not commonly removed during normal ground maintenance check should not be removed prior to the leak check.

Request Not to Consider Test Data with Drain Valves Below Ball Valves

One commenter requests that proposed paragraph (c) be revised to specify that test data on a panel valve that is below a ball valve is not valid data, and that such data should not be included in any test data submitted to the FAA for purposes of requesting an increase in a leak check interval for any valve. This commenter states that a panel valve below a ball valve would not be subject to the same operational requirements as a panel valve without a ball valve ahead of it in the drain line, as the highly reliable ball valve would always be stopping any leaks.

The FAA concurs. A panel valve installation *with* a ball valve is not subject to the same operating environment as an panel valve installation *without* a ball valve. Therefore, any data collected on the former type of valve installation would not be valid as justification for an extended leak check interval for the latter type of valve installation. To clarify this, the FAA has revised NOTE 9 of the final rule (which addressed collecting data for leak check intervals) to include information indicating that the configuration of the entire drain system on the airplanes used in evaluating a drain valve leak check interval should be defined. This way, it can be assured that the data submitted is representative of the applications where the drain valve will be used.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has 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 2,097 Model DC–9 and DC–9–80 series airplanes and Model MD–88 airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,191 airplanes of U.S. registry and 47 U.S. operators, will be affected by this AD.

1. *Leak checks.* It will take approximately 4 work hours per airplane lavatory drain to accomplish each leak check, at an average labor cost of $60 per work hour. There normally are 2 drains per airplane. Depending upon the type of valves installed and the flight utilization rate of the airplane, an airplane subject to this AD could be required to be inspected as few as 2 times per year or as many as 15 times per year. Based on these figures, the cost impact of the leak check requirement on U.S. operators will be between $960 and $7,200 per airplane per year.

2. *Inspections.* Should an operator elect to perform the inspection of the service panel drain valve cap/door seal and seal mating surface, the inspection will take approximately 1 work hour to accomplish, at an average labor cost of $60 per work hour. Depending upon the type of valves installed and the flight utilization rate of the airplane, an airplane subject to this AD could be required to be inspected as few as 2 times per year or as many as 15 times per year. Based on these figures, the cost impact of the inspection requirement on U.S. operators will be between $120 and $1,800 per airplane per year.

3. *Installation of cap on flush/fill line.* The proposed installation will take approximately 2 work hours to accomplish, at an average labor cost of $60 per work hour. The cost of required parts is estimated to be $275 per flush/fill line. There are normally 3 flush/fill lines per airplane. Based on these figures, the cost impact of the proposed installation requirement on U.S. operators will be $1,411,335, or $1,185 per airplane.

4. *Installation of lavatory vent system replacement/modification.* The portion of this installation that entails modification of the toilet assembly will require between 2 and 4 work hours per airplane to accomplish, depending on the brand of toilet involved. The average labor cost is estimated to be $60 per work hour. The cost of required parts is estimated to be between $83 and $2,121 per airplane. Based on these figures, the cost impact of this portion of the required installation on U.S. operators will be between $203 and $2,361 per airplane.

The portion of this installation that entails modification of lavatory vent lines will require between 15 and 52 work hours per airplane to accomplish, depending upon the configuration of the airplane, if certain other modifications have already been accomplished, and the modification option selected. The average labor cost is estimated to be $60 per work hour. The cost of required parts is estimated to be between $600 and $13,000 per airplane. Based on these figures, the cost impact of this portion of the required installation on U.S. operators will be between $1,500 and $16,120 per airplane.

The number of required work hours, as indicated above, is presented in this discussion as if the actions required by this AD were to be conducted as ''stand

alone'' actions. However, in actual practice, these actions could be accomplished coincidentally or in combination with normally scheduled airplane inspections and other maintenance program tasks. Therefore, the actual number of necessary ''additional'' work hours will be minimal in many instances. Additionally, any costs associated with special airplane scheduling should be minimal.

In addition to the costs discussed above, for those operators who elect to comply with proposed paragraph (b) of this AD action, the FAA estimates that it will take approximately 40 work hours per operator to incorporate the lavatory drain system leak check procedures into the maintenance programs, at an average labor cost of $60 per work hour. Based on these figures, the cost impact of the maintenance revision requirement of this AD on U.S. operators is estimated to be $2,400 per operator.

The ''cost impact'' figure discussed above is 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.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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 adding the following new airworthiness directive:

96–22–10 McDonnell Douglas: Amendment 39–9798. Docket 95–NM–214–AD.

Applicability: All Model DC–9–10, –20, –30, –40, and –50 series airplanes; Model DC–9–81 (MD–81), DC–9–82 (MD–82), DC–9–83 (MD–83), and DC–9–87 (MD–87) series airplanes; and Model MD–88 airplanes; equipped with a lavatory drainage system; 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 (g) 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 engine damage, airframe damage, and/or hazard to persons or property on the ground as a result of ''blue ice'' that has formed from leakage of the lavatory drain system and dislodged from the airplane, accomplish the following:

Note 2: The leak checks of the toilet dump valve, flush/fill line, and lavatory vent system that are required by this AD may be performed by filling the toilet tank with water/rinsing fluid to a level at least 4 inches above the flapper in the bowl, and checking for leakage after a period of 5 minutes.

(a) Except as provided in paragraph (b) of this AD, accomplish the applicable procedures specified in paragraphs (a)(1), (a)(2), (a)(3), (a)(4), (a)(5), and (a)(6) of this AD. If the individual waste drain system panel incorporates more than one type of valve, the inspection interval that applies to that panel is determined by the component with the longest inspection interval allowed. Each of the components must be inspected or tested at that time at each service panel location.

(1) For each lavatory drain system that has an in-line drain valve installed, Kaiser Electroprecision part number series 2651–329: Within 4,500 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 4,500 flight hours, accomplish the procedures specified in paragraphs (a)(1)(i) and (a)(1)(ii) of this AD:

(i) Conduct a leak check of the dump valve (in-tank valve that is spring loaded closed and operable by a T-handle at the service panel), and the in-line drain valve. The in-line drain valve leak check must be performed with a minimum of 3 pounds per square inch differential pressure (PSID) applied across the valve.

(ii) Visually inspect the service panel drain valve outer cap seal and the inner seal (if the valve has an inner door/closure device with a second positive seal), and the seal mating surfaces, for wear or damage that may allow leakage.

(2) Within 1,000 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 1,000 flight hours, accomplish the applicable procedures specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this AD for each lavatory drain system with a service panel drain valve installed that is listed in Table 1, below:

TABLE 1.—VALVES REQUIRING LEAK CHECKS AT 1,000—FLIGHT HOUR INTERVALS

Manufacturer	Part No.	Serial No.
Shaw Aero Devices	10101000C–A (or higher dash number)	All serial numbers.
Shaw Aero Devices	10101000B – A (or higher dash number)	All serial numbers.
Shaw Aero Devices	10101B–577–1	All serial numbers.
Shaw Aero Devices	10101B–577–2	All serial numbers.
Shaw Aero Devices	331 series	All serial numbers.
Shaw Aero Devices	332 series	All serial numbers.
Pneudraulics	9527 series	All serial numbers.

(i) Conduct a leak check of the dump valve and the service panel drain valve. The service panel drain valve leak check must be performed with a minimum of 3 PSID applied across the valve. Both the inner door/closure device and the outer cap/door must be leak checked.

(ii) For service panel valves that have an inner seal: In lieu of pressure testing, the outer cap seal and seal surface may be visually inspected for damage or wear.

(3) For each lavatory drain system that has a service panel drain valve installed, Shaw Aero Devices part number series 10101000C [except as specified in paragraph (a)(2) of this AD], or Shaw Aero Devices part number 10101000B [except as specified in paragraph (a)(2) of this AD]: Within 600 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 600 flight hours, accomplish the procedures specified in paragraphs (a)(3)(i) and (a)(3)(ii) of this AD, on each:

(i) Conduct a leak check of the dump valve and the service panel drain valve. The service panel drain valve leak check must be performed with a minimum of 3 PSID applied across the valve. Both the inner door/closure device and the outer cap/door must be leak checked.

(ii) For service panel valves that have an inner seal: In lieu of pressure testing, the outer cap seal and seal surface may be visually inspected for damage or wear.

(4) For other lavatory drain systems not addressed in paragraph (a)(1), (a)(2), or (a)(3) of this AD: Within 200 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 200 flight hours, accomplish the procedures specified in paragraphs (a)(4)(i) and (a)(4)(ii) of this AD:

(i) Conduct a leak check of the dump valve and the service panel drain valve. The service panel drain valve leak check must be performed with a minimum of 3 PSID applied across the valve. Both the inner door/closure device and the outer cap/door must be leak checked.

(ii) For service panel valves that have an inner seal: In lieu of pressure testing, the outer cap seal and seal surface may be visually inspected for damage or wear.

(5) For flush/fill lines: Within 5,000 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 5,000 flight hours, accomplish the procedures specified in either paragraph (a)(5)(i) or (a)(5)(ii) of this AD, as appropriate for the airplane's flush/fill line installation:

(i) For airplanes equipped with a flush/fill line cap, accomplish either paragraph (a)(5)(i)(A) or (a)(5)(i)(B):

(A) Conduct a leak check of the flush/fill line cap. This leak check must be made with a minimum of 3 PSID applied across the cap. Or

(B) Replace the seals on the toilet tank anti-siphon (check) valve and in the flush/fill line cap. Additionally, perform a leak check of the toilet tank anti-siphon (check) valve with a minimum of 3 PSID across the valve after changing the seals.

(ii) For airplanes equipped with a check valve vacuum breaker, Monogram part number 4803–86 series: Replace the O-rings/seals in the valve and test the check valve and vacuum breaker sections of the valve for proper operation, in accordance with the manufacturer's component maintenance/overhaul manual.

(6) As a result of the leak checks and inspections required by this paragraph, or if evidence of leakage is found at any other time, accomplish the requirements of either paragraph (a)(6)(i), (a)(6)(ii) or (a)(6)(iii) as applicable:

(i) If a leak is discovered, prior to further flight, repair the leak. Prior to further flight after repair, perform the leak test. Additionally, prior to returning the airplane to service, clean the surfaces adjacent to where the leakage occurred to clear them of any horizontal fluid residue streaks; such cleaning must be to the extent that any future appearance of a horizontal fluid residue streak will be taken to mean that the system is leaking again.

Note 3: For purposes of this AD, ''leakage'' is defined as any visible leakage observed during a leak test; the presence of ice in the service panel; or horizontal fluid residue streaks or ice trails originating at the service panel. The fluid residue is usually, but not necessarily, blue in color.

(ii) If any worn or damaged seal is found, or if any damaged seal mating surface is found, prior to further flight, repair or replace it in accordance with the valve manufacturer's maintenance manual.

(iii) In lieu of performing the requirements of paragraph (a)(6)(i) or (a)(6)(ii): Prior to further flight, drain the affected lavatory system and placard the lavatory inoperative until repairs can be accomplished.

(b) As an alternative to the requirements of paragraph (a) of this AD: Within 180 days after the effective date of this AD, revise the FAA-approved maintenance program to include the requirements specified in paragraphs (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), (b)(6), and (b)(7) of this AD:

(1) Replace the valve seals in accordance with the applicable schedule specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this AD. Any revision to this replacement schedule must be approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(i) For each lavatory drain system that has an in-line drain valve installed, Kaiser Electroprecision part number series 2651–329: Replace the seals within 5,000 flight hours after revision of the maintenance program in accordance with paragraph (b) of this AD, and thereafter at intervals not to exceed 52 months.

(ii) For each lavatory drain system that has any other type of drain valve: Replace the seals within 5,000 flight hours after revision of the maintenance program in accordance with paragraph (b) of this AD, and thereafter at intervals not to exceed 18 months.

(2) Conduct periodic leak checks of the lavatory drain systems in accordance with the applicable schedule specified in paragraphs (b)(2)(i), (b)(2)(ii), (b)(2)(iii), and (b)(2)(iv) of this AD. If the individual waste drain system incorporates more than one type of valve, the interval that applies to that system is determined by the component with the longest inspection interval allowed. Each of the components in that system must be inspected/tested at that time. Any revision to this leak check schedule must be approved by the Manager, Los Angeles ACO, FAA, Transport Airplane Directorate.

(i) For each lavatory drain system that has an in-line drain valve, Kaiser Electroprecision part number series 2651–329: Within 5,000 flight hours after revision of the maintenance program in accordance with paragraph (b) of this AD, and thereafter at intervals not to exceed 24 months or 5,000 flight hours, whichever occurs later, accomplish the procedures specified in paragraphs (b)(2)(i)(A) and (b)(2)(i)(B) of this AD:

(A) Conduct a leak check of the dump valve (in-tank valve that is spring loaded closed and operable by a T-handle at the service panel) and the in-line drain valve. The in-line drain valve leak check must be performed with a minimum of 3 PSID applied across the valve.

(B) Visually inspect the service panel drain valve outer cap/door seal and the inner seal (if the valve has an inner door/closure device with a second positive seal) and seal mating surface for wear or damage that may cause leakage. Any worn or damaged seal must be replaced and any damaged seal mating surface must be repaired or replaced, prior to further flight, in accordance with the valve manufacturer's maintenance manual.

(ii) Within 1,000 flight hours after revising the maintenance program in accordance with paragraph (b) of this AD, and thereafter at intervals not to exceed 1,000 flight hours, accomplish the procedures specified in paragraphs (b)(2)(ii)(A) and (b)(2)(ii)(B) of this AD for each lavatory drain system that has a service panel drain valve installed that is listed in Table 2 of this AD:

TABLE 2.—VALVES REQUIRING LEAK CHECKS AT 1,000-FLIGHT HOUR INTERVALS

Manufacturer	Part No.	Serial No.
Shaw Aero Devices	10101000C	All serial numbers.
Shaw Aero Devices	10101000B	All serial numbers.
Shaw Aero Devices	331 series	All serial numbers.
Shaw Aero Devices	332 series	All serial numbers.
Pneudraulics	9527 series	All serial numbers.

(A) Conduct leak checks of the dump valve and the service panel drain valve. The service panel drain valve leak check must be performed with a minimum of 3 PSID applied across the valve. Only the inner door/closure device of the service panel drain valve must be leak checked.

(B) Visually inspect the service panel drain valve outer cap/door seal and seal mating surface for wear or damage that may cause leakage.

(iii) For each lavatory drain system that has a lavatory drain system valve that incorporates only an outer cap seal (i.e., uses no inner flapper), or that incorporates an inner seal that is not an attached part of the valve (i.e., a ''donut''): Within 200 flight hours after revising the maintenance program in accordance with paragraph (b) of this AD, and thereafter at intervals not to exceed 200 flight hours, conduct leak checks of the dump valve and the service panel drain valve. The service panel drain valve leak check must be performed with a minimum 3 PSID applied across the valve. Both the donut and the outer cap/door must be leak checked.

(iv) For each lavatory drain system that incorporates any other type of approved valve(s): Within 400 flight hours after revising the maintenance program in accordance with paragraph (b) of this AD, and thereafter at intervals not to exceed 400 flight hours, accomplish the procedures specified in paragraphs (b)(2)(iv)(A) and (b)(2)(iv)(B) of this AD:

(A) Conduct leak checks of the dump valve and the service panel drain valve. The service panel drain valve leak check must be performed with a minimum 3 PSID applied across the valve. If the service panel drain valve has an inner door/closure device with a second positive seal, only the inner door must be leak checked.

(B) If the valve has an inner door/closure device with a second positive seal: Visually inspect the service panel drain valve outer door/cap seal and seal mating surface for wear or damage that may cause leakage.

(3) For flush/fill lines: Within 5,000 flight hours after the effective date of this AD, and thereafter at intervals not to exceed 5,000 flight hours, accomplish the procedures specified in either paragraph (b)(3)(i) or (b)(3)(ii) of this AD, as applicable:

(i) For airplanes equipped with a flush/fill line cap, accomplish either paragraph (b)(3)(i)(A) or (b)(3)(i)(B):

(A) Conduct a leak check of the flush/fill line cap. This leak check must be made with a minimum of 3 PSID applied across the cap. Or

(B) Replace the seals on the toilet tank anti-siphon (check) valve and the flush/fill line cap. Additionally, perform a leak check of the toilet tank anti-siphon (check) valve with a minimum of 3 PSID across the valve after changing the seals.

(ii) For airplanes equipped with a check valve vacuum breaker, Monogram part number 4803–86 series: Replace the O-rings/seals in the valve and test the check valve and vacuum breaker sections of the valve for proper operation, in accordance with the manufacturer's component maintenance/overhaul manual.

(4) Provide procedures for accomplishing visual inspections to detect leakage of the lavatory waste drain line and lavatory flush/fill line, at each waste service panel, to be conducted by maintenance personnel at intervals not to exceed 4 calendar days or 45 flight hours, whichever occurs later.

(5) Provide procedures for reporting leakage. These procedures shall provide that any ''horizontal blue streak'' findings must be reported to maintenance and that, prior to further flight, the leaking system shall either be repaired, or be drained and placarded inoperative.

(i) For systems incorporating an in-line drain valve, Kaiser Electroprecision part number series 2651–329: The reporting procedures must include provisions for reporting to maintenance any instances of abnormal operation of the valve handle for the in-line drain valve, as observed by service personnel during normal servicing.

(A) Additionally, for these systems, these provisions must include procedures for either: Prior to further flight, following the in-line drain valve manufacturer's recommended troubleshooting procedures and correction of the discrepancy; or prior to further flight, draining the lavatory system and placarding it inoperative until the correction of the discrepancy can be accomplished.

(B) If the drain system also includes an additional service panel drain valve, Shaw Aero Devices part number 10101000C–A (or higher dash number); or Shaw Aero Devices part number 10101000B–A (or higher dash number); or Shaw Aero Devices part number 10101B–577–1 or 10101B–577–2; or Pneudraulics part number series 9527: Indications of abnormal operation of the valve handle for the in-line drain valve need not be addressed immediately if a leak check of the service panel drain valve indicates no leakage or other discrepancy. In these cases, repair of the in-line drain valve must be accomplished within 1,000 flight hours after the leak check of the additional service panel drain valve.

(6) Provide training programs for maintenance and servicing personnel that include information on ''Blue Ice Awareness'' and the hazards of ''blue ice.''

(7) As a result of the leak checks and inspections required by this paragraph, or if evidence of leakage is found at any other time, accomplish the requirements of either paragraph (b)(7)(i), (b)(7)(ii) or (b)(7)(iii), as applicable:

(i) If a leak is discovered, prior to further flight, repair the leak. Prior to further flight after repair, perform the leak test. Additionally, prior to returning the airplane to service, clean the surfaces adjacent to where the leakage occurred to clear them or any horizontal fluid residue streaks; such cleaning must be to the extent that any future appearance of a horizontal fluid residue streak will be taken to mean that the system is leaking again.

Note 4: For purposes of this AD, ''leakage'' is defined as any visible leakage observed during a leak test; the presence of ice in the service panel; or horizontal fluid residue streaks/ice trails originating at the service panel. The fluid residue is usually, but not necessarily, blue in color.

(ii) If any worn or damaged seal is found, or if any damaged seal mating surface is found, prior to further flight, repair or replace it in accordance with the valve manufacturer's maintenance manual.

(iii) In lieu of performing the requirements of paragraph (b)(7)(i) or (b)(7)(ii): Prior to further flight, drain the affected lavatory system and placard the lavatory inoperative until repairs can be accomplished.

(c) For operators who elect to comply with paragraph (b) of this AD: Any revision to (i.e., extension of) the leak check intervals required by paragraph (b) of this AD must be approved by the Manager, Los Angeles ACO, FAA, Transport Airplane Directorate. Requests for such revisions must be submitted to the Manager of the Los Angeles ACO through the FAA Principal Maintenance Inspector (PMI), and must include the following information:

(1) The operator's name;

(2) A statement verifying that all known cases/indications of leakage or failed leak tests are included in the submitted material;

(3) The type of valve (make, model, manufacturer, vendor part number, and serial number);

(4) The period of time covered by the data;

(5) The current FAA leak check interval;

(6) Whether or not seals have been replaced between the seal replacement intervals required by this AD;

(7) Whether or not leakage has been detected between leak check intervals required by this AD, and the reason for leakage (i.e., worn seals, foreign materials on sealing surface, scratched or damaged sealing surface or valve, etc.); and

(8) Whether or not any leak check was conducted without first inspecting or cleaning the sealing surfaces, changing the seals, or repairing the valve. [If such activities have been accomplished prior to conducting the periodic leak check, that leak check shall be recorded as a ''failure'' for purposes of the data required for this request submission. The exception to this is the normally scheduled seal change in accordance with paragraph (b)(1) of this AD. Performing this scheduled seal change immediately prior to a leak check will not cause that leak check to be recorded as a failure.] The leak check is meant to be performed with the valve in the condition it would be in when in normal service. Only major blockages need be removed prior to a leak check. Minor debris that is not commonly removed during normal ground maintenance should not be removed prior to the leak check.

Note 5: Requests for approval of revised leak check intervals may be submitted in any format, provided that the data give the same level of detail specified in paragraph (c) of this AD.

Note 6: For the purposes of expediting resolution of requests for revisions to the leak check intervals, the FAA suggests that the requester summarize the raw data; group the data gathered from different airplanes (of the same model) and drain systems with the same kind of valve; and provide a recommendation from pertinent industry group(s) and/or the manufacturer specifying an appropriate revised leak check interval.

(d) For all airplanes: Within 5,000 flight hours after the effective date of this AD, accomplish the requirements of either paragraph (d)(1) or (d)(2) of this AD:

(1) Install a lever/lock cap on the flush/fill lines at each lavatory service panel. The cap must be either an FAA-approved lever/lock cap, or a cap installed in accordance with McDonnell Douglas DC–9 Service Bulletin 38–47, dated April 17, 1992. Or

(2) Install a Monogram 4803–86 series check valve on the flush/fill lines for all lavatory service panels.

(e) For only those airplanes listed in McDonnell Douglas DC–9 Service Bulletin 38–41, Revision 3, dated July 5, 1994: Accomplish the procedures specified in paragraphs (e)(1) and (e)(2) of this AD:

(1) Conduct leak checks of the lavatory vent system at the same time as conducting the leak checks of the dump valve and flush/fill line required by this AD. If a leak is discovered, prior to further flight, accomplish the procedures specified in either paragraph (e)(1)(i), (e)(1)(ii), (e)(1)(iii), or (e)(1)(iv) of this AD:

Note 7: The leak check of the lavatory vent system should be performed with a minimum of 3 pounds per square inch differential pressure (PSID) across the vent system. This leak check may be performed by filling the toilet tank with water/rinsing fluid to a level at least 4 inches above the flapper in the bowl, and checking for leakage after a period of 5 minutes. (These are the same procedures to be used for performing the leak checks of the dump valve and flush/fill line.)

(i) Repair the leak and retest. Or

(ii) Drain the affected lavatory system and placard the lavatory inoperative until repairs can be accomplished. Or

(iii) Install an FAA-approved modification that deactivates the vent system. After accomplishment of this deactivation, the leak checks of the lavatory vent system may be discontinued. Or

(iv) Replace/modify the vent system in accordance with McDonnell Douglas DC–9 Service Bulletin 38–41, Revision 3, dated July 5, 1994. After accomplishment of this replacement/modification, the leak checks of the lavatory vent system may be discontinued.

(2) Within 3 years after the effective date of this AD: Either replace/modify the vent system in accordance with McDonnell Douglas DC–9 Service Bulletin 38–41, Revision 3, dated July 5, 1994; or install an FAA-approved modification that deactivates the vent system. Accomplishment of either of these actions constitutes terminating action for the leak checks of the lavatory vent system that are required by this AD.

(f) For any affected airplane acquired after the effective date of this AD: Before any operator places into service any airplane subject to the requirements of this AD, a schedule for the accomplishment of the leak checks required by this AD shall be established in accordance with either paragraph (f)(1) or (f)(2) of this AD, as applicable. After each leak check has been performed once, each subsequent leak check must be performed in accordance with the new operator's schedule, in accordance with either paragraph (a) or (b) of this AD, as applicable.

(1) For airplanes previously maintained in accordance with this AD: The first leak check to be performed by the new operator must be accomplished in accordance with either the previous operator's schedule or the new operator's schedule, whichever would result in the earlier accomplishment date for that leak check.

(2) For airplanes that have not been previously maintained in accordance with this AD: The first leak check to be performed by the new operator must be accomplished prior to further flight; or in accordance with a schedule approved by the FAA PMI, but within a period not to exceed 200 flight hours.

(g) 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 ACO, FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA PMI, who may add comments and then send it to the Manager, Los Angeles ACO.

Note 8: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Note 9: For any valve that is not eligible for the extended leak check intervals of this AD: To be eligible for the leak check interval specified in paragraph (a)(1), (a)(2), (b)(2)(i), or (b)(2)(ii), the service history data of the valve must be submitted to the Manager, Los Angeles ACO, FAA, Transport Airplane Directorate, with a request for approval of an alternative method of compliance with this AD. The request should include an analysis of known failure modes for the valve, if it is an existing design, and known failure modes of similar valves. Additionally, the request should include an explanation of how design features will preclude these failure modes, results of qualification tests, and approximately 25,000 flight hours or 25,000 flight cycles of service history data, including a winter season, collected in accordance with the requirements of paragraph (c) of this AD or a similar program. The configuration of the entire drain system on the airplanes used in evaluating a drain valve leak check interval should be defined in the request so as to ensure that the drain system is representative of the applications where the valve will be used. As an example, data collected on a panel valve installed below a ball valve would not be acceptable for substantiating a leak check interval for the panel valve, since an installation below a ball valve would not be representative of the normal applications where it could be used.

(h) 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.

(i) The actions shall be done in accordance with McDonnell Douglas DC–9 Service Bulletin 38–47, dated April 17, 1992; and McDonnell Douglas DC–9 Service Bulletin 38–41, Revision 3, dated July 5, 1994. 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 McDonnell Douglas Corporation, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Department C1–L51 (2–60). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, 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.

(j) This amendment becomes effective on December 11, 1996.

Issued in Renton, Washington, on October 18, 1996.

James V. Devany,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 96–27395 Filed 11–5–96; 8:45 am]

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14 CFR Part 39

[Docket No. 96–NM–09–AD; Amendment 39–9797; AD 96–22–09]

RIN 2120–AA64

Airworthiness Directives; Shorts Model SD3–60 and SD3–SHERPA Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Shorts Model SD3–60 and SD3–SHERPA series airplanes, that requires a one-time inspection to detect cracks and/or corrosion of the gland nut on the shock absorber of the main landing gear (MLG), and follow-on actions. This amendment also requires repair or replacement of any cracked/corroded gland nut with a new nut. This amendment is prompted by a report indicating that, due to stress corrosion and cracking of the gland nut on the shock absorber, the MLG collapsed on an in-service airplane. The actions specified by this AD are intended to detect and correct such stress corrosion or cracking in a timely manner and consequent reduced structural integrity of the gland nut, which could result in separation of the shock absorber cylinder from the MLG shock absorber body and consequently, lead to the collapse of the MLG during landing.

DATES: Effective December 11, 1996.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 11, 1996.