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:
- (i) 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
- (ii) Replace the seals on the toilet tank antisiphon (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.
- (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 1010100B-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.]

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, 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.
- (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:
 - (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