and seal surface. Any damaged parts detected would be required to be repaired or replaced prior to further flight, or the lavatory drained and placarded inoperative until repairs can be made.

Additionally, the flush/fill line cap would be required to be leak checked. In lieu of this particular check, operators may elect to replace the seals on the toilet tank anti-siphon (check) valve and flush/fill line cap.

Paragraph (b) of this proposed AD would provide an optional procedure for complying with the rule, which would entail revising the FAA-approved maintenance program to incorporate a schedule to conduct leak checks of the lavatory drain systems. The maintenance program change would also require that procedures be provided for accomplishing the visual inspections to detect leakage, and for reporting leakage. Additionally, a training program must be provided to maintenance and servicing personnel, which would include information on ''blue ice'' awareness and the hazards of ''blue ice.''

Operators electing to comply with this option would be required to obtain approval from the Manager of the FAA's Los Angeles Aircraft Certification Office (ACO) for any revision to the leak check intervals. Requests for such revisions would be required to be accompanied by certain data when submitted to the ACO [through the appropriate FAA Principal Maintenance Inspector (PMI)] for approval. In paragraph (c) of the proposed rule, the FAA proposes a ''data collection format'' for these requests. Data submitted in accordance with the proposed format, if favorable to an increase in the leak check interval, will allow the FAA to justify increasing the leak check interval with assurance that the valves involved have the required reliability. The data provided also will be important in assisting the FAA in making future determinations of appropriate leak check intervals for new valves that have shown promising, but not conclusive, service data. For example, the FAA has previously approved extension of the leak check interval to 2,000 hours for one operator using PneuDraulics part number series 9527 valves on Boeing Model 737 series airplanes. Assuming that this operator successfully completes two cycles of 2,000-hour leak checks without finding leakage, the FAA may consider approving the extension of the 2,000-hour leak check interval to a 4,000-hour interval for this operator.

Paragraph (d) of the proposed AD also would require that all operators install a lever/lock cap on the flush/fill lines for all service panels. The cap must be either an FAA-approved cap or one installed in accordance with McDonnell Douglas Service Bulletin 38–47.

Paragraph (e) of the AD would require that leak checks of the lavatory vent system be conducted on certain airplanes at the same time as the leak checks of the dump valve and flush/fill line are conducted. If a leak is detected, the proposed rule would provide for several optional corrective actions that operators could accomplish.

Paragraph (e) would also require that, within 3 years, operators of certain airplanes either replace/modify the lavatory vent system piping in accordance with McDonnell Douglas DC–9 Service Bulletin 38–41, Revision 3; or install an FAA-approved modification that deactivates the vent system. Once either of these actions is accomplished, the periodic leak checks of the lavatory vent system may be discontinued.

Paragraph (f) of the proposed AD would require that, before an operator places an airplane subject to the AD into service, the operator must establish a schedule for accomplishment of the subject leak checks. This provision is intended to ensure that transferred airplanes are inspected in accordance with the AD on the same basis as if there were continuity in ownership, and that scheduling of the leak checks for each airplane is not delayed or postponed due to a transfer of ownership. Airplanes that have previously been subject to the AD would have to be checked in accordance with either the previous operator's or the new operator's schedule, whichever would result in the earlier accomplishment date for that leak check. Other airplanes would have to be inspected before an operator could begin operating them or in accordance with a schedule approved by the FAA PMI, but within a period not exceeding 200 flight hours.

Economic 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, would be affected by this proposed AD.

1. *Leak checks.* It would 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 proposed leak check requirement on U.S. operators would 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 would 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 proposed inspection requirement on U.S. operators would be between $120 and $1,800 per airplane per year.

3. *Installation of cap on flush/fill line.* The proposed installation would 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 would 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 would 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 proposed installation on U.S. operators would be between $203 and $2,361 per airplane.

The portion of this installation that entails modification of lavatory vent lines would 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 proposed installation on U.S. operators would 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 proposed in