

MCDONNELL DOUGLAS MODELS— Continued

DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-32F (C-9A, C-9B), DC-9-33F, DC-9-34, and DC-9-34F airplanes.
DC-9-41 airplanes.
DC-9-51 airplanes.
DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes.
MD-88 airplanes.

That AD requires replacement of certain power relays, and subsequent repetitive cleaning, inspecting, repairing, and testing of certain replaced power relays. The actions specified by that AD are intended to prevent internal arcing of the left and right generator power relays, auxiliary power relays, and external power relays, and consequent smoke and/or fire in the cockpit and cabin.

Since issuance of AD 2002-26-13, we have determined that the same unsafe condition addressed in that AD may exist on four additional Model DC-9 series airplanes. We were advised that Model DC-9-31 airplanes having manufacturer's fuselage numbers 1039 and 1046, and Model DC-9-32 having manufacturer's fuselage numbers 0268 and 0505 were omitted inadvertently from the applicability of that AD because those airplanes had been excluded inadvertently from the effectivity of paragraph 1.A of Boeing Alert Service Bulletin DC9-24A191, Revision 01, dated January 9, 2002, as cited in AD 2002-26-13. Therefore, these additional airplanes are also subject to the same unsafe condition addressed in AD 2002-26-13.

Explanation of Relevant Service Information

We have reviewed and approved Boeing Alert Service Bulletin DC9-24A191, Revision 02, dated January 7, 2003. The service bulletin describes procedures for a one-time inspection of the generator power relays, auxiliary power relays, and external power relays to determine if a certain Sundstrand (Westinghouse) part number (P/N) is installed; and corrective actions, if necessary. The corrective actions include modifying and reidentifying the power relay assemblies; installing certain power relay assemblies within service interval limits; replacing the existing power relay assemblies with power relay assemblies that are within service interval limits; and cleaning, inspecting, repairing, and testing of relay assemblies; as applicable. The revised service bulletin adds four fuselage numbers to the effectivity. No more work is necessary on airplanes

changed as shown in Revision 01 of this service bulletin. Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

The procedures specified by Revision 02 of the service bulletin are essentially the same as those procedures specified in the Revision 01 Boeing Alert Service Bulletin DC9-24A191.

Accomplishment of the actions specified in AD 2002-26-13 is acceptable for compliance with the requirements of this proposed AD.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require accomplishment of the actions specified in the service bulletin described previously, except as discussed below.

Since this proposed AD expands the applicability of AD 2002-26-13, we have considered a number of factors in determining whether to issue a new proposed AD or to supersede the "old" AD. We have considered the entire fleet size that would be affected by superseding AD 2002-26-13 and the consequent workload associated with revising maintenance record entries. In light of this, we have determined that a less burdensome approach is to issue a separate AD applicable only to the four additional airplanes. This proposed AD would not supersede AD 2002-26-13; airplanes listed in the applicability of AD 2002-26-13 are required to continue to comply with the requirements of that AD. This proposed AD is a separate AD action, and is applicable only to McDonnell Douglas Model DC-9-31 airplanes having manufacturer's fuselage numbers 1039 and 1046, and Model DC-9-32 airplanes having manufacturer's fuselage numbers 0268 and 0505; certificated in any category.

Differences Between Relevant Service Information and Proposed Rule

Operators should note that, although the procedures described in Boeing Alert Service Bulletin DC9-24A191, Revision 02, dated January 7, 2003, specify maintenance (*i.e.*, clean, inspect, repair, and test) of power relays, Sundstrand (Westinghouse) P/N 9008D09 series, when they are beyond service interval limits, this proposed AD would not require those procedures. The design of the main contact arc box for this relay is entirely different than that of power relays, Sundstrand (Westinghouse) P/Ns 914F567-3 and -4, and is not susceptible to the same type

of failure in the AC cross-tie position. Therefore, we have determined that power relays having Sundstrand (Westinghouse) P/N 9008D09 series are not subject to the identified unsafe condition of this proposed AD.

Operators should also note that the proposed AD would not require installation of certain power relays or replacement of the existing power relays with power relays that are "within service interval limits" (*i.e.*, 7,000 flight hours) as described in the service bulletin. The FAA has determined that any generator power relay, auxiliary power relay, or external power relay having Sundstrand (Westinghouse) P/N 914F567-4 that is removed from the airplane must go through maintenance and be made serviceable before the power relay can be reinstalled on an airplane. Therefore, the proposed AD would require cleaning, inspecting, repairing, and testing of power relays having Sundstrand (Westinghouse) P/N 914F567-4, or replacing those power relays with serviceable power relays having Sundstrand (Westinghouse) P/N 9008D09 series or 914F567-4. The proposed AD also would require subsequent repetitive cleaning, inspecting, repairing, and testing of power relays having Sundstrand (Westinghouse) P/N 914F567-4.

Cost Impact

There are approximately 4 airplanes of the affected design in the worldwide fleet. The FAA estimates that 2 airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 2 work hours per airplane to accomplish the proposed inspection, and that the average labor rate is \$65 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be \$260, or \$130 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this proposed AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations proposed herein would not have a substantial direct