

2003–NM–05–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

### Discussion

The FAA has received reports indicating that various intermittent limit switch functioning problems have caused the failure of certain “Circle Seal” valves installed as the engine-driven pump (EDP) direct-current (DC) motor-operated shutoff valves on certain Boeing Model 747 series airplanes. This particular valve may malfunction if the motor limit switches are not actuated, causing the motor to run at the stop until the clutch fails. If the clutch fails, the valve cannot open and close for the affected hydraulic system. This failure mode was discovered during production testing on Model 747 series airplanes. The subject valve was incorrectly identified by the manufacturer as an acceptable optional part for Model 747 series airplanes. This valve may have been installed during production or normal maintenance. The EDP valve is intended to prevent hydraulic fluid from being supplied to an engine fire, which could result in an uncontrolled fire.

### Related Rulemaking

The FAA previously issued similar rulemaking for the same unsafe condition on certain Boeing Model 737, 757, and 767 series airplanes. AD 2001–11–07, amendment 39–12249 (66 FR 31135, June 11, 2001), requires repetitive operational checks to detect malfunctioning of certain motor-operated hydraulic shutoff valves, and their eventual replacement with new valves as terminating action for the repetitive inspections.

### Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 747–29A2102, including an Evaluation Form, dated June 29, 2000, which describes procedures for determining, by a records check or inspection, whether certain Circle Seal valves have been installed on the engine struts as the EDP DC motor-operated shutoff valves. Corrective action for discrepant valves includes repetitive tests of the hydraulic supply (fire) shutoff valves, immediate replacement of failed valves, and eventual replacement of all subject valves with serviceable valves. Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

### 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.

### Cost Impact

There are approximately 681 airplanes of the affected design in the worldwide fleet. The FAA estimates that 130 airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 1 work hour per airplane to identify the valve, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the proposed AD on U.S. operators is estimated to be \$7,800, or \$60 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.

Replacing a valve, if required, would take approximately 6 work hours, at an average labor rate of \$60 per work hour. Required parts and hydraulic fluid would cost approximately \$4,438 per valve. Based on these figures, the cost impact of replacing a valve is estimated to be \$4,798.

### Regulatory Impact

The regulations proposed herein would 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 proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) Is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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:

**Boeing:** Docket 2003–NM–05–AD.

*Applicability:* Model 747 series airplanes, certificated in any category, as listed in Boeing Alert Service Bulletin 747–29A2102, dated June 29, 2000.

**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 (d) 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 leakage of hydraulic (flammable) fluid into an engine fire, which could result in an uncontrolled fire, accomplish the following:

#### Part Identification

(a) Within 6 months after the effective date of this AD, check maintenance records or perform a general visual inspection of each engine strut to determine whether any discrepant valve is installed as a hydraulic supply (fire) shutoff valve for the engine-driven pump. A discrepant valve is a Circle Seal valve part number (P/N) S270T010–3 or a valve that cannot be readily identified.