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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-297-AD; Amendment 39-13636; AD 2004-10-06]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 727-100 and -200; 737-100, -200, -200C, -300, -400 and -500; and 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 727-100 and -200; 737-100, -200, -200C, -300, -400 and -500; and 747 series airplanes. This amendment requires, among other things, preparation of the electrical bonding faying surfaces for the tubing penetrations of the hydraulic heat exchanger on the forward and aft surfaces of the rear spars of the fuel tanks of the left and right wings, a one-time measurement of the electrical bonding resistances, and follow-on actions. This action is necessary to ensure adequate electrical bonding between the penetration fittings of the hydraulic heat exchanger and the rear spars of the fuel tanks. Inadequate electrical bonding, in the event of a lightning strike, could cause electrical arcing and ignition of fuel vapor in the wing fuel tank, which could result in a fuel tank explosion. This action is intended to address the identified unsafe condition.

DATES: Effective June 22, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of June 22, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, PO Box 3707, Seattle, Washington 98124-2207. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Sulmo Mariano, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6501; fax (425) 917-6590.

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 certain Boeing Model 727-100 and -200; 737-100, -200, -200C, -300, -400 and -500; and 747 series airplanes, was published in the Federal Register on July 21, 2003 (68 FR 43040). That action proposed to require, among other things, preparation of the electrical bonding faying surfaces on the forward and aft surfaces of the rear spars of the fuel tanks of the left and right wings, a one-time measurement of the electrical bonding resistances, and follow-on actions.

Clarification of the Description of Electrical Bonding Faying Surfaces

The FAA has clarified the description of the electrical bonding faying surfaces in the final rule. We have added "for the tubing penetrations of the hydraulic heat exchanger" after "electrical bonding faying surfaces" in the "Summary" paragraph of the preamble of the final rule and in paragraph (a) of the final rule.

Comments

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

Request To Withdraw the Proposed AD

Two commenters request to withdraw the proposed AD. The commenters point out that the unsafe condition addressed by the proposed AD is inadequate electrical bonding of the hydraulic heat exchangers to the rear spar, which could cause electrical arcing and subsequent ignition of fuel vapors in the wing fuel tank. The commenters note that Boeing Service Bulletin 737-29A1096, dated June 7, 2001, does not contain any reports where the non-bonded penetration fittings have resulted in arcing. The commenters believe this proposed AD for wing fuel tanks need not be mandated.

We do not agree with the request to withdraw the proposed AD. Although there have been no reports where the non-bonded penetration fittings have resulted in arcing for the Model 737 series airplanes mentioned by the commenter, we find sufficient data exists to demonstrate that such potential remains. In addition, unless a fire or explosion results from an arcing event, there will not necessarily be evidence that such arcing occurred. Three catastrophic accidents have occurred when transport airplanes were struck by lightning: a Model 707 series airplane at Elkton, Maryland, in 1963; a Boeing Model KC-135 airplane in Spain in 1974; and a Model 747 series airplane in Madrid, Spain, in 1976. In one of those accidents, holes in metal debris from the accident pointed to a lightning strike that ignited fuel vapors inside a fuel tank. In the other two cases, observers from the ground confirmed that the airplanes had been struck by lightning and were in flames before crashing. These accidents have led us to require using conservative lightning safety design practices to preclude ignition sources in fuel tanks due to lightning. Laboratory lightning tests in conjunction with analyses conducted by the airplane manufacturer demonstrate the potential for in-tank arcing associated with a high electrical bonding resistance between the hydraulic heat exchangers and the airplane structure. Such high bonding resistances are expected to exist on these airplanes because of the details of the original design and production practices. In addition, lightning strikes are expected to occur several times in the life of each airplane. Data collected by the airplane manufacturer indicates that Model 737 and 747 series airplanes are struck by lightning approximately once per year. We and the airplane manufacturer are in agreement that a potential for arcing at the hydraulic

line penetrations and at the heat exchanger exists in the event of a lightning strike to the engine or the wing for the Boeing Model 727, 737, and 747 series airplanes listed in Table 1 of the AD. We also considered the aging of the fleet of these Boeing airplanes in determining the severity of the unsafe condition. Therefore, we do not find it necessary to change the final rule in this regard.

Request To Extend Compliance Time

Several commenters request that the proposed AD be revised to extend the compliance time specified in paragraph (a) of the proposed AD. One commenter suggests extending the compliance time for the initial actions from within 5 years (as proposed) to within 8 years or 20,000 flight hours. Another commenter suggests extending the initial compliance time to within 6 years. That commenter also notes that there have not been any reported cases of arcing occurring at the heat exchanger to wing spar area on any of the affected fleet and some of the fleets have been in service over 40 years. Given those facts, that commenter believes an equivalent level of safety can be maintained over the 6-year compliance time. The commenters contend that extending the compliance time will allow affected operators to perform the inspection during a regularly scheduled maintenance interval while adoption of the proposed compliance time of within 5 years would require operators to schedule special times to do the inspection, at additional expense.

We do not agree with the request to extend the compliance time specified in paragraph (a) of the final rule. The commenters provide no technical justification for revising the compliance time. The manufacturer has done a risk assessment analysis related to lightning strikes on the Model 727, 737, and 747 fleets and determined that an acceptable level of safety would be provided by a compliance time of five years for accomplishing the actions in the service bulletins (specified as the appropriate source of service information for the final rule). We concur with the manufacturer's assessment. We also considered the Air Transportation Association's (ATA's) guidelines of using an interval of five years for significant modifications when an acceptable level of safety is provided. Therefore, we have determined that the initial compliance time of within five years after the effective date of the AD, as specified in paragraph (a) of the final rule, is appropriate. We do not find it necessary to change the final rule in this regard. However, if operators care to provide technical justification, they may request an approval of an alternative method of compliance (AMOC) from the FAA, in accordance with paragraph (e) of the final rule.

Request To Revise Compliance Time for Corrective Action for Incorrect Bonding Resistance

Two commenters request that paragraph (a) of the proposed AD be revised by changing the compliance time to accomplish corrective action for any incorrect bonding resistances from "Before further flight" to "within 5 years after the effective date of this AD." The commenters are concerned that an inability to attain the specified electrical bonding resistances will delay return to service of the airplane which in turn could cause operational disruptions.

We do not agree with the request to change the compliance time to accomplish corrective action for any incorrect bonding resistances. Our general policy is to require repair of known identified unsafe conditions before further flight (though we may make exceptions to this policy in certain cases of unusual need). Because of the safety implications and consequences associated with electrical resistances beyond a certain threshold, resistances below the threshold must be met before further flight. In addition, since the fuel tanks are open, there should be no undue burden to operators when they accomplish the corrective action for incorrect bonding resistances that is required by paragraph (a) of the final rule. We do not find it necessary to change the final rule in this regard.

Request To Revise Applicability for Boeing Model 747 Series Airplanes

One commenter, the manufacturer, requests to revise the applicability in Table 1 of the proposed AD for Boeing Model 747 series airplanes. The manufacturer states that the effectivity listed for Boeing Alert Service Bulletin 747-29A2104, dated July 19, 2001, is "All 747 airplanes from line numbers 1 through 1271." The manufacturer points out that, at line number 1272, it incorporated a design change into Model 747 production that is equivalent to the change defined in the service bulletin. The manufacturer recommends changing the applicability for 747 series airplanes in Table 1 of the AD from "as listed in Boeing Alert Service Bulletin 747-29A2104, dated July 19, 2001," to "line numbers 1 thru 1271."

We agree that the applicability of the final rule should be revised for Boeing Model 747 series airplanes. For the reasons specified by the commenter, we have revised the "Applicability" for the 747 series airplanes in Table 1 of the final rule to "Line Number 1 through 1271 inclusive." The number of Model 747 series airplanes affected by the final rule has not changed.

Request To Allow Operator Equivalent Procedures for Draining and Access to the Fuel Tanks

Two commenters request that operator equivalent procedures (OEPs) be allowed for draining and gaining access to the fuel tanks. The commenters contend that the wording in paragraph (a) of the proposed AD will prevent operators from using their own procedures for draining fuel tanks and preparing them for entry unless they request an AMOC. The commenters feel the intent of the proposed AD is to prepare and measure the electrical bond of the hydraulic heat exchangers and not to mandate how the fuel tanks are drained.

We agree that OEPs may be allowed for draining and gaining access to the fuel tanks provided those procedures are FAA-accepted procedures. The use of OEPs for draining and gaining access to the fuel tank does not directly affect the means of correcting the unsafe condition. The use of OEPs may also reduce the costs of implementing the AD. Therefore, we have added paragraph (b) to the final rule stating: "Operators may use their own FAA-accepted equivalent procedures for draining the fuel tanks and gaining access to the fuel tanks." We also revised paragraph (a) of the final rule by adding "except as provided by paragraph (b) of this AD" and we revised the paragraph numbering following paragraph (b) of the final rule.

Request To Use Latest Revision of Boeing Alert Service Bulletin 737-29A1096

Several commenters request that Revision 1 of Boeing Alert Service Bulletin 737-29A1096, dated July 31, 2003, be referenced in the proposed AD instead of the original version of the service bulletin, dated June 7, 2001. The commenters point out that the manufacturer has issued Revision 1 of the service bulletin and it contains changes to the parts and procedures. The commenters also suggest that modifications accomplished per the original issue of the service bulletin be considered acceptable for compliance with the proposed AD.

We agree with the commenters. We have reviewed and approved Boeing Alert Service Bulletin 737-29A1096, Revision 1, dated July 31, 2003, as the appropriate source of service information for the actions specified in the final rule. The changes in Revision 1 of the service bulletin clarify the parts and procedures described in the original version of the service bulletin. No additional work is specified in Revision 1 of the service bulletin. Accordingly, the final rule has been revised to reference Boeing Alert Service Bulletin 737-29A1096, Revision 1, dated July 31, 2003. In addition, paragraph (d) has been added to the final rule to allow actions accomplished before the effective date of the final rule per the original version of the service bulletin, dated June 7, 2001, to be considered acceptable for compliance with the corresponding action specified in this final rule.

Request To Use Latest Revision of Boeing Alert Service Bulletin 747-29A2104

Two commenters request that Revision 1 of Boeing Alert Service Bulletin 747-29A2104, dated March 7, 2002, be referenced in the proposed AD instead of the original version of the service bulletin, dated July 19, 2001. The commenters point out that the proposed AD references the original version of the service bulletin and that Revision 1 of the service bulletin was issued on March 7, 2002.

We agree with the commenters. We have reviewed and approved Boeing Service Bulletin 747-29A2104, Revision 1, dated March 7, 2002, as the appropriate source of service information for the actions specified in the final rule. The actions in Revision 1 of the service bulletin are almost identical to the actions described in the original version of the service bulletin. No additional work is specified in Revision 1 of the service bulletin. Accordingly, the final rule has been revised to reference Boeing Service Bulletin 747-29A2104, Revision 1, dated March 7, 2002. In addition, the original version of the service bulletin, dated July 19, 2001, has been added to paragraph (d) of the final rule to allow actions accomplished before the effective date of the final rule per the original version of the service bulletin to be considered acceptable for compliance with the corresponding action specified in this final rule.

Request To Approve Future Revisions of Service Bulletins

Two commenters request that approval be added for the accomplishment of future revisions of the service bulletins listed in Tables 1 and 2 of the proposed AD as being acceptable for compliance with the proposed AD. One commenter noted that there have been revisions to the service bulletins listed in Tables 1 and 2 of the proposed AD.

We do not agree with the request to approve accomplishment of future revisions of the service bulletins as being acceptable for compliance with the final rule. When referencing a specific service bulletin in a final rule, using a phrase such as, "or later FAA-approved revisions," violates Office of the Federal Register regulations for approving materials that are incorporated by reference. To allow operators to use later revisions of the referenced document (issued after publication of the final rule), either we must revise the final rule to reference specific later revisions, or operators must request approval to use later revisions as an AMOC with the final rule, under the provisions of paragraph (e) of the final rule. As stated previously, we have revised the final rule to specify the use of Boeing Alert Service Bulletin 737-29A1096, Revision 1, dated July 31, 2003; and Boeing Service Bulletin 747-29A2104, Revision 1, dated March 7, 2002. We do not find it necessary to make any additional changes to the final rule in this regard.

Request To Remove Reference to Service Bulletin for Incorrect Bonding Resistance Corrective Action

Two commenters request that paragraph (a) of the proposed AD be revised by removing the reference to Boeing Service Bulletin 737-29A1096 listed in Table 2 for corrective action for any incorrect bonding resistance. One commenter notes that there are no specific corrective work instructions for incorrect electrical bonding resistances in the service bulletin.

We agree that the reference for corrective action for any incorrect bonding resistances should be revised in paragraph (a) of the final rule. All the service bulletins listed in Table 2 of the final rule do not contain any instructions for correcting incorrect bonding resistances. We have revised the last sentence in paragraph (a) of the final rule to provide instructions for correcting incorrect bonding resistances as follows: "If the bonding resistance is incorrect, before further flight, repeat the preparation of the electrical bonding faying surface on the forward and aft surfaces of the rear spar of the fuel tanks of the left and right wings as necessary to achieve a bonding resistance below the threshold specified in the Accomplishment Instructions of the applicable service bulletin listed in Table 2 of this AD."

Request To Remove Reference to Service Bulletin for Leak Repairs

Two commenters request that paragraph (b) of the proposed AD be revised by removing the reference to Boeing Alert Service Bulletin 737-29A1096 for the repair of any leaks. One commenter notes that there are no leak repair instructions in the service bulletin. The commenter does agree that leakage should be repaired before further flight.

We do not agree with the request to revise paragraph (c) of the final rule (specified in paragraph (b) of the proposed AD) by removing the reference to the service bulletin for repair of any leaks. While the service bulletin does not contain specific leak repair instructions, it does cite the appropriate airplane maintenance manuals for repair of any leaks. We do not find it necessary to change the final rule in this regard.

Request To Remove Identification of Rear Spar With Service Bulletin Number

Two commenters request to remove the requirement to identify the rear spar with the service bulletin number as specified in Figure 8, Step 5, of Boeing Alert Service Bulletin 737-29A1096. One commenter believes there is no real benefit to this action and that it creates additional exterior markings that must be maintained. The commenter contends that tracking accomplishment of the service bulletin via aircraft records should be sufficient.

We do not agree with the request to remove the requirement to identify the rear spar with the service bulletin number. The airplane manufacturer has studied this matter and concluded that the best method for identifying the accomplishment of the measurement and follow-on actions is to mark the service bulletin number on an appropriate airplane component. We concur with the manufacturer. We do not find it necessary to change the final rule in this regard.

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.

Changes to 14 CFR part 39/Effect on the AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. However, for clarity and consistency in this final rule, we have retained the language of the NPRM regarding that material.

Change to Labor Rate Estimate

We have reviewed the figures we have used over the past several years to calculate AD costs to operators. To account for various inflationary costs in the airline industry, we find it necessary to increase the labor rate used in these calculations from \$60 per work hour to \$65 per work hour. The cost impact information, below, reflects this increase in the specified hourly labor rate.

Cost Impact

There are approximately 5,085 airplanes of the affected design in the worldwide fleet. We estimate that 2,251 airplanes of U.S. registry will be affected by this AD. The following table shows

the estimated cost impact to do the required actions for airplanes affected by this AD. The average labor rate is \$65 per work hour. The estimated maximum total cost for all airplanes affected by this AD is \$6,827,860.

Model	Number of U.S.- registered airplanes	Work hours (estimated)	Labor cost (estimated)	Maximum fleet cost (estimated)
727	910	44	\$2,860	\$2,602,600
737	1,091	44	2,860	3,120,260
747	250	68	4,420	1,105,000

The cost impact figures discussed above are 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. 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 adopted herein will 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 final rule does not have federalism implications under Executive Order 13132.

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:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-10-06 Boeing: Amendment 39-13636. Docket 2001-NM-297-AD.

Applicability: This AD applies to the airplanes listed in Table 1 of this AD, certificated in any category:

TABLE 1.—APPLICABILITY

Model	Applicability
727-100 and -200 series airplanes.	As listed in Boeing Alert Service Bulletin 727-29A0067, dated June 7, 2001.
737-100, -200, -200C, -300, -400 and -500 series airplanes.	As listed in Boeing Alert Service Bulletin 737-29A1096, Revision 1, dated July 31, 2003.
747 series airplanes	Line Numbers 1 through 1271 inclusive.

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 (e) 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 ensure adequate electrical bonding between the penetration fittings of the hydraulic heat exchanger and the rear spars of the fuel tanks of the left and right wings, accomplish the following:

Prepare Electrical Bonding Faying Surfaces/Measure Electrical Bonding

(a) Within 60 months after the effective date of this AD: Prepare the electrical bonding faying surfaces for the tubing penetrations of the hydraulic heat exchanger on the forward and aft surfaces of the rear spars of the fuel tanks of the left and right wings, and do a one-time measurement of the electrical bonding resistances between the penetration fittings of the hydraulic heat exchanger and the rear spars, and between the heat exchanger tube and the lower wing stringer surfaces, per the Accomplishment Instructions of the applicable Boeing service bulletin listed in Table 2 of this AD, except as provided by paragraph (b) of this AD. The procedures include the following: Depressurize the hydraulic systems; drain the fuel from the fuel tanks; disconnect the inlet and outlet tubes of the heat exchangers and remove the heat exchangers; prepare the faying surface by sanding the surface areas down to bare metal and apply alodine protective coating on the surfaces, and re-install the heat

exchangers. If the bonding resistance is incorrect, before further flight, repeat the preparation of the electrical bonding faying surface for the tubing penetrations of the hydraulic heat exchanger on the forward and aft surfaces of the rear spar of the fuel tanks of the left and right wings as necessary to achieve a bonding resistance below the threshold specified in the Accomplishment Instructions of the applicable service bulletin listed in Table 2 of this AD.

TABLE 2.—SERVICE BULLETINS

Model	Boeing service bulletin	Revision level	Date
727-100 and -200	727-29A0067	Original	June 7, 2001.
737-100, -200, -200C, -300, -400 and -500.	737-29A1096	Revision 1	July 31, 2003.
747	747-29A2104	Revision 1	March 7, 2002

(b) Operators may use their own FAA-accepted equivalent procedures for draining the fuel tanks and gaining access to the fuel tanks.

Follow-On Actions

(c) Before further flight after accomplishment of paragraph (a) of this AD: Apply fillet sealant and protective finishes around the penetration fittings of the hydraulic heat exchanger per the Accomplishment Instructions of the applicable Boeing service bulletin listed in Table 2 of this AD (per Figure 4 of Boeing Alert Service Bulletin 727-29A0067; per Figure 8 of Boeing Alert Service Bulletin 737-29A1096, Revision 1; or per Figure 4 of Boeing Service Bulletin 747-29A2104, Revision 1; as applicable); then service and pressurize the hydraulic systems and examine for signs of hydraulic fluid leakage; and service the fuel tank and examine for signs of fuel leakage per the Accomplishment Instructions of the applicable service bulletin listed in Table 2 of this AD. Repair any leaks found before further flight, per the applicable service bulletin listed in Table 2 of this AD.

Actions Accomplished Per Previous Issue of Service Bulletin

(d) Actions accomplished before the effective date of this AD per Boeing Alert Service Bulletin 737-29A1096, dated June 7, 2001; and Boeing Alert Service Bulletin 747-29A2104, dated July 19, 2001; as applicable, are considered acceptable for compliance with the corresponding action specified in this AD.

Alternative Methods of Compliance

(e) 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, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permit

(f) 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.

Incorporation by Reference

(g) Unless otherwise specified in this AD, the actions shall be done in accordance with the applicable service bulletins listed in Table 3 of this AD:

TABLE 3.—APPLICABLE SERVICE BULLETINS

Service bulletin	Revision level	Date
Boeing Alert Service Bulletin 727–29A0067	Original	June 7, 2001.
Boeing Alert Service Bulletin 737–29A1096	Revision 1	July 31, 2003.
Boeing Service Bulletin 747–29A2104	Revision 1	March 7, 2002.

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 Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Effective Date

(h) This amendment becomes effective on June 22, 2004.

Issued in Renton, Washington, on May 5, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-10906 Filed 5-17-04; 8:45 am]

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