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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0128; Directorate Identifier 2013-NM-133-AD; Amendment 39-18278; AD 2015-19-16]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for The Boeing Company Model 777 airplanes equipped with Rolls-Royce Trent 800 series engines. This AD was prompted by reports of in-flight separation of the engine's aft plug from the forward plug, which are the two parts of the turbine exhaust plug assembly. This AD requires installation of a serviceable turbine exhaust plug assembly (for certain airplanes), and a general visual inspection (for certain airplanes) to determine the diameter of the bolt used at the forward and aft plug interface, and applicable corrective actions. We are issuing this AD to prevent separation of the aft plug from the forward plug of the turbine exhaust plug assembly, which could result in parts departing the airplane and hitting the empennage, and destabilizing the airplane during a critical flight phase. In addition, parts remaining on a runway could pose a hazard to another airplane.

DATES: This AD is effective November 6, 2015.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 6, 2015.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2014-0128.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2014-0128; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kevin Nguyen, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6501; fax: 425-917-6590; email: kevin.nguyen@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to The Boeing Company Model 777 airplanes equipped with Rolls-Royce Trent 800 series engines. The NPRM published in the Federal Register on March 3, 2014 (79 FR 11725); corrected March 11, 2014 (79 FR 13592). The NPRM was prompted by reports of in-flight separation of the engine's aft plug from the forward plug, which are the two parts of the turbine exhaust plug assembly. The NPRM proposed to require installation of a serviceable turbine exhaust plug assembly (for certain airplanes), and a general visual inspection (for certain airplanes) to determine the diameter of the bolt used at the forward and aft plug interface, and applicable corrective actions. We are issuing this AD to prevent separation of the aft plug from the forward plug of the turbine exhaust plug assembly, which could result in parts departing the airplane and hitting the empennage, and destabilizing the airplane during a critical flight phase. In addition, parts remaining on a runway could pose a hazard to another airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592); and the FAA's response to each comment.

Request To Match Compliance Time

Cathay Pacific requested that we ensure that the AD compliance date will be the same as the compliance time of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012; or Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014. Cathay Pacific reasoned that paragraph (i) of the proposed AD specified compliance within 60 months after the effective date of the proposed AD, and both revisions of this service information specify a compliance time that is within 60 months after the Revision 3 date of the service bulletin.

We infer that Cathay Pacific is requesting that we reduce the compliance time of this final rule to match the compliance time listed in the service information. We do not agree with the commenter's request. In developing an appropriate compliance time for this action, we considered not only the degree of urgency associated with addressing the subject unsafe condition, but the manufacturer's recommendation for an appropriate compliance time, the time required for the rulemaking process, the availability of required parts, and the practical aspect of installing the required modification

within an interval of time that corresponds to the typical scheduled maintenance for the majority of affected operators. Under the provisions of paragraph (l) of this AD, we may approve requests for adjustments to the compliance time, if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety. We have not changed the AD in this regard.

Request To Define ''Serviceable'' To Include Pre-Boeing Service Bulletin 777-78-0051 Plug Assemblies

Cathay Pacific requested that we revise paragraph (j) of the proposed AD; corrected March 11, 2014 (79 FR 13592) to define "serviceable" plug assemblies. Cathay Pacific reasoned that both pre- and post-Boeing Service Bulletin 777-78-0051 plug assemblies can be installed, and the modification can be completed before the required compliance time of the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592)).

We do not agree to revise paragraph (j) of this AD because serviceable assemblies are already defined in paragraph (h) of this AD. This definition applies to the entire AD. Also, pre- Boeing Service Bulletin 777-78-0051 plug assemblies do not meet the definition of serviceable, as specified in the service information.

Request To Revise Definition of a Serviceable Assembly

American Airlines (AA) requested that we revise paragraph (h) of the proposed AD to add another definition: Serviceable plug assemblies, as those maintained in accordance with the operator's continued airworthiness maintenance program (CAMP), prior to issuance of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012. AA explained that prior to release of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012, due to reported events of exhaust plug losses by other operators, AA recognized that multiple removals of the exhaust aft plug causes the 3/16" nutplate locking feature to wear out, which could then result in loss of the aft plug. As a result, AA implemented a maintenance program as part of its CAMP, which offers a level of safety equivalent to that of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012. During every engine removal, for a refurbishment or overhaul shop visit, the pre-Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012, exhaust aft plug nutplates are replaced with new nutplates.

In addition, AA stated that the holes are inspected for elongation and cracks in accordance with procedures equivalent to Boeing Special Attention Service Bulletin 777-78-0051 inspection procedures. Model 777 Airplane Maintenance Manual Chapter 78-11-02-400-803-R00, requires that the minimum fastener run[hyphen]on torque of 2 in[hyphen]lbs is met during every installation of the aft exhaust plug. In addition, each of the exhaust aft plug fasteners receives a general visual check, using a ladder/stand and a bright light, every 150 flight hours. AA expressed that it is currently the largest Model 777-200 Trent 800 operator in the worldwide fleet and has not lost an exhaust aft plug due to loose or missing fasteners, as its CAMP demonstrates an equivalent level of safety to the service information.

As an alternative, AA requested that we revise the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592)) to include, as serviceable exhaust aft plugs, those maintained in accordance with the operator's own maintenance program, such as AA's approved CAMP prior to issuance of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012, and to remain in service until the next engine removal for refurbishment or overhaul shop visit, or 60 months from the effective date of the AD, whichever is later.

We do not agree to include the requested provision. The maintenance program described by AA is likely to be acceptable in lieu of direct compliance with portions of this AD; however, the description of that program provided in AA's comment is not sufficient to serve as engineering data for the FAA to approve as an optional method of compliance in this AD. Operators can submit a request for approval of an alternative method of compliance (AMOC), with a more detailed proposal

to use the maintenance program, if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety. We have not changed this AD in this regard.

Request To Change Compliance Time of Parts Installation Limitation

Boeing and Cathay Pacific requested that we revise paragraph (j) of the proposed AD to change the installation limitation from the effective date of the AD to the compliance deadline for the AD. Boeing reasoned that paragraph (j) of the proposed AD currently creates an alternative and indeterminate compliance deadline. Boeing explained that during the compliance interval and prior to the AD deadline, operators may be required, due to unforeseen circumstances, to install a unit that is not a serviceable unit, and that under the current wording, this would unnecessarily ground the airplane.

We do not agree to revise paragraph (j) of this AD to change the installation limitation from the effective date of the AD to the compliance date of the AD. Grace period compliance times are provided in ADs in recognition that an immediate unscheduled modification requirement would be disruptive. A grace period is included to give operators a reasonable period of time to schedule and perform actions that are required by the AD and that otherwise would not have occurred. A parts installation limitation is included in some cases to require that, if the parts affected by the AD are already being removed for a reason other than the AD itself, that opportunity to correct the unsafe condition should be taken. We determine whether such a parts installation limitation should be included in the AD, and what the specific requirements of the limitation will be, based on the risk level associated with the unsafe condition and the expected availability of required replacement parts.

In this case, we made a determination that the risk warranted the consideration of a parts installation limitation. We also determined that sufficient parts would be available to meet that limitation, and that sufficient time to perform any required actions to make a nozzle assembly serviceable as defined in paragraph (h) of this AD would exist in situations where the nozzle might be removed in maintenance. Specifically, we considered the case of an unscheduled engine change where an operator may not have included a serviceable nozzle assembly with the replacement engine. Modification of a nozzle assembly to meet the definition of a serviceable nozzle can be performed in roughly the same or less elapsed time than it takes to perform the engine replacement itself. We did not foresee any other commonly occurring situation where an engine nozzle assembly would be removed for maintenance. However, as discussed in response to the comment issue "Request to Revise Definition of a Serviceable Assembly," if an operator specifically and adequately addresses the management of this unsafe condition within its CAMP, we will consider AMOC approvals to allow installation of nozzle assemblies that do not meet the definition of serviceable nozzle in paragraph (h) of this AD.

We clarified paragraph (j) of this AD as a result of these comments. We considered the explanatory statements about the intent of the parts installation limitation language used in several recent ADs, and determined that different language should be used in this case to more clearly convey the intent of the parts installation limitation contained in this AD. We have added the words "or re-install" to paragraph (j) to clarify that any installation of a nozzle assembly, regardless of the reason for the removal of the nozzle assembly and regardless of the source of the replacement nozzle assembly, is subject to the parts installation limitation of paragraph (j) of this AD.

Request To Clarify Paragraph (j) of the Proposed AD

AA requested that we clarify paragraph (j) of the proposed AD. AA explained that paragraph (j) of the proposed AD allows that only a serviceable turbine exhaust plug assembly may be installed on any airplane as of the effective date of this AD, while paragraph (i) of the proposed AD requires a compliance time within a certain time after the effective date of this AD, without any referral to serviceable turbine exhaust plug assembly. AA reasoned that as written, these steps are confusing and

could lead operators to believe the actions required by the AD are due as of the effective date of this AD.

We agree with the commenter and have clarified paragraph (j) of this AD by including references to paragraphs (h)(1) and (h)(2) of this AD.

Request To Clarify the AMOC Paragraph

Boeing requested that we revise paragraph (k)(3) of the proposed AD (paragraph (l)(3) of this AD) to indicate that an AMOC, approved for a repaired serviceable unit is to be attached to, and travel with, the repaired serviceable unit. Boeing explained that the AMOC approval should apply to the deviation on the serviceable unit and thereby travel with the serviceable unit, which is rotable and could be installed on numerous airplanes during its service life. Boeing also explained that a unit repaired in accordance with an approved AMOC will fulfill the intent of airplane safety when the unit is installed on an airplane, and that the unit will be in compliance with the AD as long as the part is serviceable as defined by the AD.

We agree with the commenter and have revised paragraph (l)(3) of this AD accordingly.

Request To Use the CAMP

AA requested that we revise the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592)), to include language that allows the optional re-identification of the exhaust plug with the correct post-Boeing Special Attention Service Bulletin 777-78-0051, part number identity in accordance with a method approved by the operator's approved CAMP, as the CAMP provides an equivalent level of safety. AA explained that prior to the release of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012, AA implemented a maintenance program to install data plates on the forward and aft exhaust plug. The plates were installed because the manufacturer part number and serial number, which were chemical-etched on the exhaust plug skin by the manufacturer, were no longer legible. AA stated that the data plates contain the original part number, a company-assigned serial number, and the text "MATCHED SET. DO NOT SEPARATE." AA added that the installed identification plates are in the same location as, but a different length than, the plates specified in Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012.

We agree to allow alternative permanent part-marking methods. If the markings contain the required information and are permanent, the intent of the marking requirement is addressed, and additional flexibility is provided to operators. Therefore, part-marking methods for the CAMP might be approved, provided that the markings are permanent and contain the information specified in Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014. We have added this information to paragraph (g) of this AD accordingly.

Request To Eliminate AMOC Approval Requirement for Previous Repairs

AA requested that we revise paragraph (h) of the proposed AD, to allow repairs accomplished prior to the release of this AD, in accordance with Boeing instructions and approved per 14 CFR part 121.379, or a Boeing ODA, to be included as acceptable repairs in this AD, without the requirement to obtain a Boeing ODA AMOC or Seattle Aircraft Certification Office AMOC approval.

AA explained that, prior to release of the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592)); exhaust aft plugs have received repairs at the exhaust aft plug mate line during inspection or during incorporation of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012, utilizing procedures provided by Boeing without Boeing ODA approval; rather, the repair was approved per 14 CFR part 121.379. AA expressed that paragraph (h) of the proposed AD specifies using a repair method approved in accordance with the procedures

specified in paragraph (k) of the proposed AD, and these previously accomplished repairs, which followed Boeing repair instructions, offer an equivalent level of safety to the NPRM.

We partially agree with the request. We agree to add paragraph (l)(4) in this AD to eliminate the requirement for subsequent AMOC approval for repairs that were previously approved by the Boeing ODA, using an FAA Form 8100-9, and having met the requirements of paragraph (h) of this AD, for the definition of serviceable turbine exhaust plug assemblies. We are confident that the Boeing ODA repair approval process ensures that each repair is reviewed by qualified engineering staff with knowledge of the original airplane design and compliance substantiation. At the same time, we want to ensure that those repairs would have a configuration that meets the definition of serviceable turbine exhaust plug assemblies as defined in the service information. We have added paragraph (l)(4) in this AD to state that repairs approved prior to the effective date of this AD, by the Boeing ODA using FAA Form 8100-9, and having met the requirements of paragraph (h) of this AD for the definition of serviceable turbine exhaust plug assemblies, do not require AMOC approval.

We disagree, however, to eliminate the AMOC approval requirement for repairs approved by other means. Even though Boeing Service Engineering may have provided a "no technical objection" statement, qualified engineering staff with knowledge of the original airplane design and compliance substantiation may not have been involved in evaluating the repair. We have not changed this AD in this regard.

Additional Changes to This AD

We have revised this AD to refer to Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014, as the appropriate source of service information for the required actions. Among other things, this service information adds Group 2 airplanes to paragraph 1.E., "Compliance;" includes a maintenance records check; adds a general visual inspection to determine the diameter of the bolt used at the forward and aft plug interface; and adds applicable corrective actions–all of which we have clarified in new paragraph (g)(4) of this AD. Paragraphs (g)(3) and (c) of the proposed AD already accounted for the Group 2 airplanes defined in Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014. Paragraph (g)(2) of the proposed AD accounted for the required actions.

We have also added a new paragraph (k) to this AD to provide credit for certain actions, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012. We have redesignated the subsequent paragraphs of this AD accordingly.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592)) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 11725, March 3, 2014; corrected March 11, 2014 (79 FR 13592)).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

We reviewed Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014. Among other things, this service information adds Group 2 airplanes to paragraph 1.E., "Compliance;" includes a maintenance records check; adds a general visual inspection to

determine the diameter of the bolt used at the forward and aft plug interface; and adds applicable corrective actions. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

Costs of Compliance

We estimate that this AD affects 35 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation	5 work-hours × $85 per hour = $425	$0	$425	$14,875
General visual inspection	2 work-hours × $85 per hour = $170	$0	$170	$5,950

We estimate the following costs to do any necessary replacement that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need this replacement:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Replacement (replacing the3/16-inch bolts with1/4-inch bolts)	5 work-hours × $85 per hour = $425	$0	$425

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(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),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2015-19-16 The Boeing Company: Amendment 39-18278; Docket No. FAA-2014-0128; Directorate Identifier 2013-NM-133-AD.

(a) Effective Date

This AD is effective November 6, 2015.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 777-200, -200LR, -300,-300ER, and 777F series airplanes; certificated in any category; equipped with Rolls-Royce Trent 800 series engines.

(d) Subject

Air Transport Association (ATA) of America Code 78, Engine Exhaust.

(e) Unsafe Condition

This AD was prompted by reports of in-flight separation of the engine's aft plug from the forward plug, which are the two parts of the turbine exhaust plug assembly. We are issuing this AD to prevent separation of the aft plug from the forward plug of the turbine exhaust plug assembly, which could result in parts departing the airplane and hitting the empennage or hitting a person on the ground, and destabilizing the airplane during a critical flight phase; parts remaining on a runway could cause damage to another airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Installation and General Visual Inspection

At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014, except as provided by paragraph (i) of this AD, do the applicable actions specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014. Alternative part marking methods are allowed for the requirements of this paragraph, if approved by the FAA principal maintenance inspector, provided that the markings are permanent and contain the information required by Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014.

(1) For airplanes identified as Group 1, Configuration 1, in Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014: Install a serviceable turbine exhaust plug assembly.

(2) For airplanes identified as Group 1, Configurations 2 and 3, in Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014: Do a general visual inspection to determine the diameter of the bolt used at the forward and aft plug interface, and before further flight, do all applicable corrective actions.

(3) For airplanes listed in paragraph (c) of this AD that are not listed in the "Effectivity" section of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014: Do a general visual inspection to determine if a serviceable turbine exhaust plug assembly is installed. If a serviceable turbine exhaust plug assembly is not installed, before further flight, install a serviceable turbine exhaust plug assembly.

(4) For airplanes identified as Group 2, in Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014: Do a maintenance records check to determine affected turbine exhaust plug assemblies, and for affected assemblies, do a general visual inspection to determine the diameter of the bolt used at the forward and aft plug interface, and before further flight, do all applicable corrective actions.

(h) Definition of Serviceable Assembly

For the purposes of this AD, an acceptable serviceable turbine exhaust plug assembly must meet the conditions specified in paragraph (h)(1) or (h)(2) of this AD.

(1) A new assembly with part number 314W5520-22.

(2) A serviceable assembly as defined in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014; except, for any assembly on which the actions specified in Part 2 or Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014, are done, and Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014, specifies to contact Boeing for repair instructions, this AD requires repair before further flight, using a method approved in accordance with the procedures specified in paragraph (l)(1) of this AD.

(i) Exception to Service Information Specifications

Where paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014, specifies a compliance time "after the Revision 3 date of this service bulletin," or "after the Revision 4 date of this service bulletin," this AD requires compliance within the applicable time after the effective date of this AD.

(j) Parts Installation Limitation

As of the effective date of this AD, only a serviceable turbine exhaust plug assembly that meets the requirements of paragraph (h)(1) or (h)(2) of this AD may be installed or reinstalled on any airplane.

(k) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012 (which is not incorporated by reference in this AD), provided that for Group 1, Configuration 2, airplanes, on which the condition defined in Table 2 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 777-78-0051, Revision 3, dated August 23, 2012, was found (i.e., only 1/4 inch diameter bolts are found installed at

all 33 locations forward and aft plug interface), the re-identification of the forward and aft plug was done before further flight after the inspection.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (m) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD. An AMOC approved as described in this paragraph for a specific serviceable nozzle assembly may be transferred with that nozzle assembly to another aircraft without an additional AMOC approval being required.

(4) Repairs approved prior to the effective date of this AD by the Boeing ODA do not require AMOC approval if those repairs were approved using FAA Form 8100-9 and those repairs meet the definition of a serviceable assembly contained in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014.

(m) Related Information

(1) For more information about this AD, contact Kevin Nguyen, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office (ACO) FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6501; fax: 425-917-6590; email: kevin.nguyen@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Special Attention Service Bulletin 777-78-0051, Revision 4, dated February 7, 2014.

(ii) Reserved.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference 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/cfr/ibr-locations.html.

Issued in Renton, Washington, on September 16, 2015.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate,

Aircraft Certification Service.