



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

# Policy Statement

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**Subject:** FAA Order 8110.42D, *Parts Manufacturer Approval Procedures - Use of Parts Manufacturer Approval (PMA) for Minor Modification Articles on Products*

**Date:** 10/06/2016

**Policy No:**  
PS-AIR-21-1601

**Initiated By:**  
AIR-100

## Summary

This policy statement addresses the use of the Federal Aviation Administration's (FAA) Parts Manufacturer Approval (PMA) process to issue an approval for an article that will provide for installation eligibility as a minor modification to a product (meaning the aircraft, aircraft engine, or propeller) without a corresponding type design change (Type Certificate (TC) amendment or Supplemental Type Certificate (STC)). Modifications to products often result in major changes in type design requiring an STC (refer to Title 14 of the Code of Federal Regulations (14 CFR 21.113)). The issue facing the FAA and industry addressed in this policy statement resides in the gray area that occurs when a modification to a product does not rise to the level of a major change pursuant to 14 CFR 21.93, and the producer of the modification article wishes to sell it in accordance with 14 CFR 21.9. In many cases, there are other regulatory options besides PMA, but in some cases it is beneficial to the FAA and the aviation industry to utilize the PMA process in order to have data approved by the FAA and articles produced under a production approval.

This policy statement recognizes the use of PMA as a suitable method to approve an article and provide for that article's installation eligibility in cases where the installation would not constitute an introduction of a major change to a product's type design. For the purposes of this policy statement, a minor modification article poses no appreciable effect to the product and is a new article installed on said product (i.e., not replacing TC'd articles under typical PMA methods). This policy statement does not intend to forgo the STC process for major changes/modifications or when critical parts or influencing parts are being considered under the PMA process. In these cases, the STC process typically remains the required path to FAA data approval under the established regulations.

## Definition of Key Terms

In this document, the terms "must," "should," and "recommend" have specific meanings, which are explained in Appendix 1 to this policy.

## Current Regulatory and Advisory Material

Section 21.9 states in part that: “(a) If a person knows, or should know, that a replacement or modification article is reasonably likely to be installed on a type-certificated product, the person may not produce that article unless it is--

- (1) Produced under a type certificate;
- (2) Produced under an FAA production approval;
- (3) A standard part (such as a nut or bolt) manufactured in compliance with a government or established industry specification;
- (4) A commercial part as defined in Sec. 21.1 of this part;
- (5) Produced by an owner or operator for maintaining or altering that owner or operator's product; or
- (6) Fabricated by an appropriately rated certificate holder with a quality system, and consumed in the repair or alteration of a product or article in accordance with part 43 of this chapter.

(b) Except as provided in paragraphs (a)(1) and (a)(2) of this section, a person who produces a replacement or modification article for sale may not represent that part as suitable for installation on a type-certificated product.”

Section 21.113(b) provides: “If a person does not hold the TC for a product and alters that product by introducing a *major* change in type design that does not require an application for a new TC under § 21.19, that person must apply to the appropriate aircraft certification office *for an STC.*” (*Emphases added.*)

FAA Order 8110.42D, Appendix K, item #18 provides: “Modification article is *new* to the product and approved under a *major or minor* change to the type design. An STC is the most common source of modification articles.” (*Emphases added.*)

## Relevant Past Practice

### Background

Past practices varied when approving data for product alterations or modifications not rising to the level of a major change. The PMA process has been utilized (not exclusively) in the past for situations where this issue has arisen. In the mid-2000s, the local processes were confusing and inconsistently applied between data acceptable to the FAA and approved data such as under a PMA. As of 2012/2013, some Aircraft Certification Offices (ACOs) instituted a self-imposed prohibition on utilizing the PMA process, seeking instead to work all modifications under the STC process regardless of their true appreciable effects to the involved products, or simply refusing to approve the small number of projects which fell into these previously described gray areas.

### Previous Policy Does Not Exist

Previous revisions of FAA Order 8110.42, Parts Manufacturer Approval, did not specifically address minor modification articles. Guidance in the “General Applicability” or “General

Requirements” paragraphs of those earlier revisions to the Order did however delineate between articles modified under STCs and those modifications that do not rise to the level of a major change. Up until Revision B, these paragraphs only state that major design changes **cannot** be made using PMAs. This left the option open to the possibility for minor product modifications to use the PMA process for the design and production approval of their associated articles.

A nearly identical delineation was present in FAA Order 8110.42 revision C, Chapter 1, paragraph 5, General Requirements, allowing for PMA produced articles to support a STC, provided that the replacement article does not alter the existing change. A minor editorial change in this guidance unintentionally led to the misinterpretation that minor modification article approvals via the PMA process was no longer allowed. However, verbal guidance offered by the Design, Manufacturing, and Airworthiness Division (AIR-100) to the field and directorate offices supported the practice of the previous revisions. To clarify this, FAA Order 8110.42 revision D, Appendix K, specifically clarified modification articles as “new to the product and approved under a major or minor change to the type design...”

Based on the workload associated with growing industry trends and the resulting articles produced to support modifications that do not warrant a major change in type design, several ACOs asked AIR-110 to clarify the policy and procedure for minor modification articles (i.e., articles not associated with major changes to type design).

## **Policy**

Pursuant to the preceding guidance and discussion items detailed above, the definition of “modification article” in FAA Order 8110.42D, Appendix K establishes the baseline as it relates to clarifying global PMA policy and procedures. This policy statement clarifies the FAA’s position that PMA is an acceptable method to approve a modification article, and provide for that article’s installation eligibility in cases where (1) there is no original article to replace and (2) when the installation of the PMA article would not constitute an introduction of a major change in a product’s type design. In order to use this approach, the modification (or alteration) must first be identified and justified as not being major with respect to the product by the PMA applicant and agreed to by the project ACO in accordance with previously established FAA guidance materials. Following Order 8110.42, the only acceptable approval method under the PMA process will be PMA via test reports and computations utilizing the general analysis approach to the product specific regulations. These articles will be identified as “*modification articles*” in the associated PMA supplement(s) under the “Approved Replacement for Article Number” column unless otherwise determined by the project ACO and coordinated with AIR-100. Instructions for Continued Airworthiness (ICA) policy remains consistent and will still be required as they have always been for any other PMA. Given that the articles under review within this policy statement are new to the existing product, the FAA does not foresee many instances where supplemental ICAs will not be required prior to PMA approval.

## Effect of Policy

The policy clarified in this document does not constitute a new regulation. FAA employees and designees should follow this guidance when it is applicable. Applicants should expect that certificating officials will consider this information when making findings of compliance relevant to new certificate actions. Additional consideration regarding this guidance relevant to Organization Designation Authorization (ODA) is made by the FAA field office that has cognizant oversight on a case by case basis and is not inferred to be automatically approved herein. This policy does not alter or add to the guidance relative to FAA Order 8110.119, Streamlined Process for Parts Manufacturer Approval (PMA). In addition, this policy statement identifies one means, but not the only means, of compliance. For inquiries regarding this policy statement, please contact Robert Sprayberry, AIR-111, at (202) 267-1655.

## Implementation

Although the final policy only applies to those projects with a PMA application date that is on or after the effective date of this policy statement, the applicant and project office may use it to full effect for any stage of applicable projects.



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## Terms

Table 1-1 defines the use of key terms in this policy statement. The table describes the intended functional impact.

**Table 1-1. Definition of Key Terms**

	<b>Regulatory Requirements</b>	<b>Acceptable Methods of Compliance (MOC)</b>	<b>Recommendations</b>
<b>Language</b>	Must	Should	Recommend
<b>Meaning</b>	Refers to a regulatory requirement that is mandatory for design approval	Refers to instructions for a particular MOC	Refers to a recommended practice that is optional
<b>Functional Impact</b>	No design approval if not met	Alternative MOC has to be approved by issue paper.	None, because it is optional