NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
National Policy

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SUBJ: Commercial Parts

1. Purpose of this Notice. This notice describes what aircraft certification office (ACO) personnel do to approve a commercial parts list (CPL), changes to a CPL, and replacement alternative parts.

2. Audience. All Federal Aviation Administration (FAA) personnel responsible for evaluating applications for a type certificate (TC), amended type certificate (ATC), supplemental type certificate (STC), and parts manufacturer approval (PMA) involving commercial parts.

> **Note:** Per Title 14 Code of Federal Regulations (CFR) 21.1(b)(4), a technical standard order authorization (TSOA) and a letter of design approval (LODA) are design approvals. However both the TSOA and LODA are issued based on a showing of compliance to a minimum performance standard, not the applicable airworthiness standards. Therefore TSOA and LODA holders are precluded from utilizing the privileges of 14 CFR 21.9(a)(4).

3. Where to find this notice. You can find this notice at MYFAA Employee website: https://employees.faa.gov/tools_resources/orders_notices or http://www.faa.gov/**regulations**_policies/orders_notices/. and on the Regulatory and Guidance Library (RGL) website: http://rgl.faa.gov.

4. Background.

a. The development of a commercial part classification began in the early 1990's after an investigation revealed spare articles were being produced without FAA production approvals (oftentimes by suppliers to the aircraft manufacturers). The solution for these companies was to obtain a PMA. However, many of these articles were not specifically designed or produced for sale for installation on type certificated products. These articles are often produced by major manufacturers (such as consumer electronics) where aviation represents a very small share of their overall business. The regulations were silent on this issue, and as a result, many of these articles became suspected unapproved parts.

b. Commercial part is a designation the FAA has defined in 14 CFR 21.1(b)(3). FAA design approval holders (DAH) have the privilege of designating qualified articles as commercial parts by including the CPL as part of their instructions for continued airworthiness (ICA). The. manufacturer of an article on a CPL is not required to get an FAA production approval for that article.

c. Specifically, 14 CFR 21.9(a)(4), introduces commercial parts under replacement and modification articles. It explicitly deals with articles installed on aircraft that were not produced solely for aviation purposes. Advisory Circular (AC) 20-168, *Certification Guidance for Installation of Non-essential, Non-Required Aircraft Cabin Systems and Equipment* provides a means for approval of such articles; and identifies RTCA/DO-313 as a standardized and streamlined process for demonstrating compliance with applicable airworthiness requirements.

5. Procedures. As part of the TC, ATC, STC, or PMA certification project, have the applicant identify whether or not they plan to develop a CPL as part of their ICA.

a. Inform applicants that they must submit data for each article on the proposed CPL. The data must substantiate the following in order for the article to be acceptable as a commercial part:

(1) The failure of the article leads to no degradation in the level of safety of the product (as defined in § 21.1(b)(5));

(2) The article is only manufactured under the manufacturer's specifications and marked with the manufacturer's markings. No additional design, quality, marking requirements, or production receiving inspection is required by the DAH; and

Note: The term manufacturer, as used in this paragraph, refers to the article manufacturer that is exempt from obtaining a production approval (e.g., Sony, Krups, LG), and not the DAH.

(3) Any other data necessary for the FAA to approve the CPL.

b. Receive from the applicant a proposed CPL accompanied by the following supporting data as a minimum:

(1) Statement of the function of the article;

(2) System safety assessment;

(3) Drawing or sketch of where the article is used (if article uses electrical power or if deemed necessary by ACO on non-electrical article); and

(4) Dimensions, materials, and weight.

c. The ACO determines whether the applicant has established that each article on the proposed CPL meets the commercial part criteria. Discretionary function and engineering judgment should be used in determining the level and depth of FAA review in approving the CPL. Your office may allow the applicant to use means other than that specified in AC 21-45, *Commercial Parts*, without notifying AIR-100. An applicant must provide a system safety assessment for possible failure modes and results to show those failures to be benign or contained so as to not degrade the level of safety of the product. Failure is not only defined as the article's intended function stopping, but also a failure must not create a hazardous situation. An example is an electrical short must not create a fire hazard. A letter must be

sent to the applicant to inform them of CPL approval (refer to the CPL with date and revision number). An email or other written notification must be sent to an applicant for a CPL that is rejected (with explanation), or whether more data is needed for an incomplete package. Keep a copy of the approval letter and the approved CPL in the project folder.

6. Instructions for Continued Airworthiness.

a. An applicant may notify the ACO of its intention to create a CPL in the project certification plan. The proposed CPL must be submitted as part of the ICA as provided for in 14 CFR 21.50(c). The FAA must approve the CPL if the applicant has met the criteria as established in this Notice and AC 21-45. The CPL is considered an approved portion of the ICA. The ICA distribution requirements in 14 CFR 21.50 also apply to the CPL. For ease of distribution, the CPL may be a stand-alone document.

b. Once an article is listed on a CPL and approved by the FAA, the article must remain on the CPL, unless a safety issue exists that involves the article. The CPL establishes that the article may be procured from any available source and is acceptable for installation under part 43. The articles must be the exact same manufacturer and article number as listed in the CPL.

7. Changes to CPL. Only the DAH may propose changes to the CPL. The DAH must provide these changes according to a plan that was accepted by both the ACO and the Aircraft Evaluation Group (AEG) for changes to the ICA. The changes must be formatted to directly supplement the original ICA and clearly state what is being changed. The DAH must control changes to the CPL by date, revision number, and a revision history (see AC 21-45 appendix A for an example). In accordance with 14 CFR 21.50(b), these changes must be made available to any person who must comply with them.

8. Replacement Alternative. Commercial part “replacement alternative” is an alteration to the product. A replacement alternative may be determined to be acceptable as part of a minor alteration, unless the article involves electrical power. Articles involving electrical power follow a major alteration process and must meet the requirements of AC 20-168 or its equivalent. If approved data is necessary, the data supporting replacement alternative may be approved by the FAA, an appropriately authorized designated engineering representative (DER), or an Organization Designation Authorization (ODA) unit member. Approval of a replacement alternative article through the alteration process does not change the CPL. Only the DAH may change the CPL. An installation of a replacement alternative article will require a record in accordance with 14 CFR 43.9.

9. Technical Requirements for an STC. An STC holder has the same privileges and responsibilities as a TC holder in regards to creating a CPL.

10. PMA. PMA holders who obtained PMA through evidence of a license agreement are excluded from utilizing the privileges of 14 CFR 21.9(a)(4), unless prior written approval is obtained from the licensor.

11. ODA. The ODA may not approve a CPL.

12. Definitions.

a. Article: An article (from 14 CFR 21.1) is defined as a material, part, component, process, or appliance.

b. Commercial Part: Commercial part is defined in 14 CFR 21.1(b)(3). Commercial part is an article (part, component or possibly an appliance depending on the appliance, but not a material or process) that was originally approved through an FAA design approval and is listed on an FAA-approved commercial parts list included in the DAH's ICA.

c. Approved, Unapproved, Acceptable Article: Articles are classified as approved, unapproved, or acceptable:

(1) An *Approved* article has an approved design under 14 CFR 21.8, is produced under an FAA-approved production system (for example, production certificate or PMA), conforms to FAA-approved data, and is in a condition for safe operation.

(2) An *Unapproved* article is an article not meeting the requirements of an approved or acceptable article.

(3) An *Acceptable* article has an approved design under 14 CFR 21.8, but is not required to be produced under an FAA-approved 14 CFR part 21 production system. An acceptable article can be a standard part; an owner/operator produced article for the purposes of maintaining their own product; or a commercial part. These articles are *acceptable* for installation on product under 14 CFR part 43.

13. Related Publications.

a. AC 21-45, *Commercial Parts.*

b. AC 20-168, *Certification Guidance for Installation of Non-Essential, Non-Required Aircraft Cabin Systems and Equipment.*

14. Distribution. Distribute this notice to the following: the Washington headquarters branch levels of the Aircraft Certification Service, Flight Standards Service, the Regulatory Support Division in Oklahoma City, and the Aviation System Standards Office; the branch level in the Aircraft Certification Service directorates and regional Flight Standards Service divisions; all aircraft certification offices, manufacturing inspection district and satellite offices, and all flight standards district offices; the Aircraft Certification Branch and Flight Standards Branch at the FAA Academy; the International Policy Branch in Brussels, Belgium (AIR-BRU); and finally, applicable representatives of the Administrator and all international field offices.

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