

NOTICE

U.S. Department of Transportation
Federal Aviation Administration

N 8110.80

2/26/99

Cancellation
Date: 2/26/00

SUBJ: The FAA and Industry Guide to Product Certification

- 1. PURPOSE.** This notice implements the use of “*The FAA and Industry Guide to Product Certification*”. This guide documents the Certification Process Improvement (CPI) process, by describing how to plan, manage, and document an effective, efficient product certification process and working relationship between the Aircraft Certification Service of the Federal Aviation Administration (FAA) and an applicant. This guide will be used by the FAA and applicants for Type Certification (TC), significant Supplemental Type Certification (STC), significant amendments to either TC or STC, and for Production Approval.
- 2. DISTRIBUTION.** This notice is distributed to the branch level in the Aircraft Certification Service; all Headquarters Flight Standards Division Offices; all National Resource Specialists and section level in all Aircraft Certification Directorates; all Manufacturing Inspection Offices (MIO); all Aircraft Certification Offices (ACO); all Aircraft Evaluation Groups (AEG); all Manufacturing Inspection District and Satellite Offices (MIDO and MISO); and Brussels Certification Staff; and the FAA Academy Regulatory Support Division.
- 3. BACKGROUND.** New, increasingly complex technologies and globalization of aviation manufacturing, as well as diminishing resources for both the FAA and applicants have necessitated improvements in the FAA’s certification process. As certification programs have grown in complexity over the years, it has become increasingly more important to identify certification problems as early in the process as possible to decrease the applicant’s certification risk. Often, an applicant makes major design decisions and commitments before they submit an application for certification to the FAA. By then it could be too late to easily correct design problems identified by the FAA. Communication between the FAA and applicant during the design concept phase can help avoid costly changes.
- a. In 1995, the FAA and General Aviation Manufacturers Association (GAMA) began an effort to enhance the certification process. As work progressed, the similarities of process problems throughout the manufacturing industry became clear. In 1997, the team was expanded to include rotorcraft, engines, large transports, and other civil aeronautical products. CPI has been developed jointly by FAA, GAMA, and Aerospace Industries Association (AIA) representatives, all of whom comprise the Certification

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Process Improvement Team. As stated in the guide the vision of this team is: “FAA and Industry are committed to improving the effectiveness and efficiency of the product certification process...”

b. CPI provides a structured approach to the project management of a certification program. The most basic principle of CPI is for the FAA and the applicant to establish an early and formal written partnership through the Partnership for Safety Plan (PSP). Under this PSP “umbrella” agreement, the applicant and the FAA will prepare Project Specific Certification Plans (PSCP) for each certification program. The PSCP will include key project elements that were not included in the PSP such as the certification basis, proposed delegations and milestones for the program. Through this formal partnership the FAA and applicant team will work together for the duration of the product certification process, to ensure open and effective communication. The prime difference between current and CPI practices is in this early involvement to identify and resolve the product certification basis and related issues through a mutually agreed upon PSP. Also, in order to better use the FAA’s human resources, the decision has been made to maximize the use of designees in the certification process, with oversight focused on critical safety issues.

c. CPI is not a major overhaul of the current certification process. It does not change what we do; rather it changes how we do it. CPI is a compilation and enhancement of the best business and certification practices and is compatible with FAA Orders 8110.4, “*Type Certification Process*” and 8100.5, “*Aircraft Certification Procedures*”. If the applicant chooses to certify their product under CPI, the PSCP will supersede the requirement for a Certification Program Plan described in FAA Order 8100.5 “*Aircraft Certification Directorate Procedures*” paragraph 400.b.

d. As applicants begin to use CPI for certification, Project Evaluation Forms will be used throughout the process to facilitate continuous improvement of the process. During the initial CPI programs, each evaluation form will be reviewed by an FAA/Industry team to determine any changes that should be made to the process.

e. CPI is different from the current process in the use of upfront communication and planning. Keeping an emphasis on safety, CPI, with its upfront efforts, realigns FAA and an applicant’s resources and develops a more successful relationship between the FAA and applicant. Most importantly, we will continue to certify safe products using a more efficient process. This more efficient process will result in a reduction in costly revisions and delays late in the product certification process. The Aircraft Certification Management Team (ACMT) supports the goal of having 75 percent of all field offices initiating an active CPI program by September 30, 1999.

4. RELATED PUBLICATIONS.

- a. Order 8110.4, Type Certification Process.
- b. Order 8100.5, Aircraft Certification Procedures
- c. 14 CFR Part 21, Certification Procedures for Products and Parts
- d. Job Task Aid, The FAA Type Certification Process, May 1996.

5. ACTION. The following actions should be taken:

a. As of the date of this notice, FAA Aircraft Certification Service Offices should begin to use “*The FAA and Industry Guide to Product Certification*” for Type Certification, significant Supplemental Type Certification, significant amendments to either TC or STC, and Production Approval if requested by the applicant. At this time, CPI is a voluntary process to be used at the discretion of the applicant. The FAA will support every applicant that wants to use this process.

b. This guide should be used as a supplement to existing FAA guidance. If you find that this document conflicts with or contradicts any other guidance material, please contact the Aircraft Engineering Division, AIR-100 for further direction.

c. For the first three Partnership Projects in each ACO, the program manager should complete Project Evaluation Forms (PEF) after each phase of the program and submit them to the Aircraft Engineering Division, Certification Procedures Branch, AIR-110 for consideration of continuous improvement to the CPI process.

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