CHANGE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ORDER 8120.2E
CHG 1

National Policy

Effective Date:
5/29/08

SUBJ: Production Approval and Certificate Management Procedures

1. Purpose. This change modifies and clarifies critical characteristics and critical process attributes as listed in paragraph 149, Selection of Product Audit Characteristics.

2. Who This Change Affects. This order is distributed to Washington Headquarters division levels of the Flight Standards Service, to the branch levels of the Aircraft Certification Service, to the branch levels in the regional Flight Standards Divisions and Aircraft Certification Directorates, to all Flight Standards District Offices, to all Aircraft Certification Offices, to all Aircraft Certification field offices, to all Manufacturing Inspection District and Satellite Offices, to the Aircraft Certification and Airworthiness Branches at the Federal Aviation Administration Academy, to the International Policy Office, and to the Flight Standards Service Regulatory Support Division.

3. Disposition of Transmittal Paragraph. Retain this transmittal sheet until the directive is canceled by a new directive.

PAGE CHANGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
85 and 86	5/29/07	85 and 86	5/29/08

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Initiated By: AIR-200

(3) Category 3 Facility. An ACSEP evaluation is not required.

d. Group IV Facility. An ACSEP evaluation is not required.

145.-147. RESERVED.

PART 6. PRODUCT AUDIT

148. GENERAL. A product audit evaluates the effectiveness of the PAH's or associate facility's quality control or inspection system and the airworthiness of products utilizing critical and certain non-critical characteristics and/or processing attributes generated during the manufacturing process. The product audit may be initiated at any point in the manufacturing process after inspections have been completed. The product audit is conducted at a production approval holder or associate facility, but may also be conducted at a supplier facility where a product or part(s) thereof is manufactured. If specific expertise is required during this audit, the PI should advise the MIDO/CMO manager. If a product audit is required in another geographic MIDO/CMO, the PI will comply with the hand-off procedures in paragraph 133 of this order. Product audits will be conducted in conjunction with every scheduled ACSEP evaluation. In addition, product audits are conducted in conjunction with scheduled PI evaluations as follows:

NOTE: The scheduling requirements listed in paragraphs a through c below are considered to be the minimum requirements. See also figure 16 of this order. A MIDO/CMO may schedule additional product audits at specific facilities when required to ensure continued operational safety.

a. Group I Facility.

(1) Category 1 Facility. Two product audits will be conducted in conjunction with two PI evaluations that are conducted annually. Additionally, a product audit will be conducted in conjunction with each scheduled ACSEP evaluation.

(2) Category 2 Facility. A product audit will be conducted in conjunction with one PI evaluation annually. Additionally, a product audit will be conducted in conjunction with each scheduled ACSEP evaluation.

(3) Category 3 Facility. A product audit is not required.

b. Group II Facility.

(1) Category 1 Facility. A product audit will be conducted in conjunction with one PI evaluation annually. Additionally, a product audit will be conducted in conjunction with each scheduled ACSEP evaluation.

(2) Category 2 or 3 Facility. A product audit is not required during a PI evaluation. However, a product audit will be conducted in conjunction with each scheduled ACSEP evaluation at a Category 2 facility only.

c. Group III or IV Facility. A product audit is not required during a PI evaluation. However, a product audit will be conducted in conjunction with each scheduled ACSEP evaluation at a Group III Category 1 and 2 facility only.

149. SELECTION OF PRODUCT AUDIT CHARACTERISTICS. The product audit will be conducted utilizing critical characteristics and/or critical processing attributes generated during the manufacturing process, as well as certain non-critical characteristics and/or non-critical processing attributes. These characteristics and attributes are defined as follows:

a. Critical characteristics are those where failure to maintain conformity could cause loss of function and create an unsafe condition. Critical process attributes are those where lack of conformity directly affects the product or part(s) thereof and could cause failure or create an unsafe condition. The selection of the critical characteristics and/or critical process attributes is determined by reviewing the following (this review does not need to be documented):

(1) Known service problem areas.

(2) Characteristics/attributes that are operator controlled.

(3) Characteristics/attributes classified as critical as defined by the PAH's or associate facility's Engineering Drawings, Process Specifications, Test Specifications, and Quality Control Procedures.

(4) Service Difficulty Reports (SDRs). Information related to SDRs can be found on the FAA Flight Standards Service Aviation Information website located at http://av-info.faa.gov/isdr/.

b. In addition to critical characteristics and/or critical processing attributes, the PI may select certain non-critical characteristics and/or non-critical processing attributes, such as radiuses, surface finishes, machine to cast features, cad plating, NDI, etc.

150. PRODUCT AUDIT AREAS. The product audit may be divided into one or more of the following areas:

a. Final Product.

b. Subassembly.

c. Detail Parts.

d. Raw Material.

151. PRODUCT AUDIT CRITERIA. The audit criteria used in the performance of a product audit to establish conformity to approved type design are listed below. This audit criteria is a minimum and not all-inclusive. Figure 19 indicates which criteria are applicable to each product audit area, as a minimum.

NOTE: A product audit is not a re-inspection by the FAA representative. Rather, it is the FAA representative witnessing the re-inspection by the PAH, associate facility, or applicable supplier. The PAH's, associate facility's, or applicable supplier's personnel are responsible for the handling of the part(s) during the product audit.

a. Operational/functional. Verify that the subassembly or final product conforms to the functional/operational test criteria (e.g., revalidating test results, test setup, software revision, software checksum, rig approval, certified equipment, use of approved procedures, certified test parameters, use of required rig, and calibration).