VOLUME 6 SURVEILLANCE

CHAPTER 9  PART 145 INSPECTIONS

Section 12  Safety Assurance System: Inspect a Part 145 Repair Station’s Parts and Materials Program

6-1861 REPORTING SYSTEM(S). Use Safety Assurance System (SAS) automation and the associated Data Collection Tools (DCT).

6-1862 OBJECTIVE. This section provides guidance for inspecting repair station procedures for receiving, protecting, segregating, and identifying all parts and materials required to support the ratings held.

6-1863 GENERAL. Repair stations must have procedures in their Repair Station Manual (RSM)/Quality Control Manual (QCM) describing receipt and documentation of all articles, standard parts, and raw materials. The repair station must also inspect raw materials and standard parts for:

- Proper documentation, identification, and traceability;
- Conformity to a specification and acceptable quality;
- Shelf life;
- Contamination;
- Shipping damage; and
- State of preservation.

6-1864 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Volume 10, Safety Assurance System Policy and Procedures.
- Volume 14, Chapter 1, Section 2, Flight Standards Service Compliance Action Decision Procedure.
- Federal Aviation Administration (FAA) Order 8120.16, Suspected Unapproved Parts Program.
- Advisory Circular (AC) 20-62, Eligibility, Quality, and Identification of Aeronautical Replacement Parts.
- AC 21-29, Detecting and Reporting Suspected Unapproved Parts.
- AC 43-18, Fabrication of Aircraft Parts by Maintenance Personnel.
- AC 145-9, Guide for Developing and Evaluating Repair Station and Quality Control Manuals.

B. Forms. None.
C. Job Aids. None.

6-1865 PROCEDURES.

A. Review Applicable Information. Before inspecting, the principal inspector (PI) should carefully review the following:

- Parts 43 and 145.
- AC 43-18.
- RSM/QCM.
- Operations specifications (OpSpecs).
- Safety Performance Analysis System (SPAS).
- SAS Configuration Module 1 Vitals Information.

B. Review Information on Parts and Materials. Verify that all parts and materials meet the following requirements:

1) Storage and Protection.

   a) Verify if the repair station is complying with environmental requirements established by the Original Equipment Manufacturer (OEM) for the storage of parts and materials. These OEM requirements can include temperature, humidity, static, and ultraviolet (UV) light exposure. Receiving/incoming inspection personnel must be familiar with these requirements.

   b) Confirm whether parts room articles and those items in process are identified to show:

       1. Basic part information, such as name, make/model/serial number, batch, or lot.

       2. Serviceability status of parts and materials in a manner that readily identifies serviceable parts and materials from unserviceable parts and materials.

       3. Rejected parts, including questionable parts, awaiting disposition.

   c) Verify the protection of parts and materials in storage and during transit in a manner that prevents damage, contamination, loss, or substitution until installation. Sensitive parts and equipment, such as oxygen parts, O-rings, or electrostatic-sensitive devices, must be properly stored, packaged, identified, and protected from contamination and damage. Hazardous, flammable, or volatile materials and aircraft parts, such as fire extinguisher squibs, must be stored in flameproof cabinets or facilities.

   d) Verify that all parts are appropriately identified and segregated.
2) **Life-Limited Parts.**

   a) All life-limited parts must have up-to-date component times listed on historical records or appropriate tags, as required. Repair stations must also clearly mark, monitor, and dispose of all items received with shelf life limits and/or specific storage requirements per RSM/QCM procedures.

   b) The PI must determine if the repair station meets the requirements of part 43, § 43.10.

3) **Documentation/Traceability.**

   a) Parts/materials receiving procedures provide for traceability to an approved source. The repair station should retain traceability records for all incoming articles.

   NOTE: It is common to receive certain raw materials/standard parts in lots, which the repair station must break down into smaller quantities. These raw materials can include hardware, sheet stock, welding rod, composite materials, and coating powders. In these cases, the repair station must be able to trace them back to the original lots. The repair station must have systems in place to ensure that only approved and traceable parts and materials are issued for maintenance performed.

   b) The repair station maintains a record of inspections and tests used to verify the airworthiness of received components.

   c) Sub-assemblies disassembled from higher-level components and used in a subsequent repair must meet the requirements of § 43.9. The approval for return to service substantiates the work performed on the sub-assembly prior to its use in subsequent repairs. Traceability to the original work order/traveler documenting the disassembly from the higher-level component should be maintained.

   d) Standard parts (nut, bolt, rivet, O-ring etc.) manufactured in compliance with an established industry, competent authority, or other government specification may be used. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standard (NAS), Army/Navy Aeronautical Standard (AN), SAE, SAE Sematec, Joint Electron Device Engineering Council (JEDEC), Joint Electron Tube Engineering Council (JETEC), and American National Standards Institute (ANSI), EN Specifications, etc. Standard parts should be traceable to a Certificate of Conformity (C of C), or other appropriate documentation issued by the manufacturer, which references the standards used. Standard parts must be in satisfactory condition and must not be used in areas contrary to the manufacturer’s maintenance manuals.

   e) Prior to performing work for/on behalf of a part 121 or part 135 operator, the repair station must ensure that it follows part 145, § 145.206, Notification of Hazardous Materials Authorizations.
NOTE: If not already in place, the PI, through collaboration with the repair station, should provide information on hazardous material (hazmat) for receiving and shipping training to aid personnel in the recognition and disposition of Department of Transportation (DOT) recognized hazmat. Refer to the FAA’s Office of Hazardous Materials Safety for additional information: http://www.faa.gov/about/office_org/headquarters_offices/ash/ash_programs/hazmat/.

4) Personnel Training. Receiving personnel should comply with RSM/QCM procedures to determine that incoming raw materials are of an acceptable quality. The repair station should conduct and document the training of receiving personnel in parts receiving/shipping, parts control, and detecting and reporting suspected unapproved parts (SUP).

NOTE: Inspectors should be alert to those repair station activities that dispose of scrap parts and materials, and should review RSM/QCM procedures to verify that scrap parts and materials disposal does not enable return to service.

C. Check Procedures for SUPs. Review the procedures used to detect and report SUPs and/or improperly maintained parts with repair station personnel (refer to Order 8120.16). These procedures should:

1) Identify persons responsible for administering the SUP program.

2) Provide instructions on completion and submission of FAA Form 8120-11, Suspected Unapproved Parts Report.

3) Describe control of articles pending SUP determination.

4) Outline training requirements of receiving personnel.

D. Brief the Certificate Holder on the Inspection and Its Results. Discuss any deficiencies and possible corrective actions. The aviation safety inspector (ASI) can find instructions for conducting this briefing in Volume 1, Chapter 3, Section 1.

6-1866 TASK OUTCOMES.

A. Follow SAS Guidance. Follow Volume 10 guidance for Module 4, Data Collection and Data Reporting; PIs follow Module 5, Analysis, Assessment, and Action procedures.

B. Compliance Action. Follow the process contained in Volume 14, Chapter 1, Section 2 to identify the root cause that led to any deviations from rules, standards, or procedures; resolve them, and return the repair station to full compliance.

6-1867 FUTURE ACTIVITIES. Follow Volume 10 to plan future risk-based surveillance in SAS.

RESERVED. Paragraphs 6-1868 through 6-1880.