VOLUME 6 SURVEILLANCE

CHAPTER 9 PART 145 INSPECTIONS

Section 11 Safety Assurance System: Inspect a Part 145 Repair Station's Quality Control System

6-1839 REPORTING SYSTEM(S). Use Safety Assurance System (SAS) automation and the associated Data Collection Tools (DCT).

6-1840 OBJECTIVE. This section provides guidance for inspecting a repair station's quality control (QC) system to ensure compliance with procedures in the Repair Station Manual (RSM) or Quality Control Manual (QCM).

6-1841 GENERAL.

A. Acceptable. The quality control system must be acceptable to the Federal Aviation Administration (FAA). This ensures the system can gauge the airworthiness of articles on which the repair station or repair station contractors perform maintenance, preventive maintenance, or alterations.

B. System Maintenance. The repair station must maintain an inspection system and describe the procedures in detail in its manual system. Procedure descriptions must include:

- Establishing the purchase of aviation articles,
- How that material is inspected upon receipt,
- Receiving customer articles,
- Progressing through each inspection step, and
- Conducting a final inspection and approval for return to service.

C. Documentation. This system must also control and document maintenance activities, from the incoming inspection to final inspection, such as in a work order system. The QC system must also describe the qualifying and surveillance requirements of a noncertificated person.

NOTE: The phrase "noncertificated person" means a person or facility outside a repair station, and does not include a noncertificated individual working for the repair station.

6-1842 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 of the Code of Federal Regulations (14 CFR) Parts 43, 65, and 145.
- Volume 2, Chapter 11, Section 4, Evaluate a Part 145 Repair Station Manual and Quality Control Manual or Revision.
- Volume 10, Safety Assurance System Policy and Procedures.

- Advisory Circular (AC) 145-5, Repair Station Internal Evaluation Programs.
- AC 145-9, Guide for Developing and Evaluating Repair Station and Quality Control Manuals.

B. Forms. None.

C. Job Aids. None.

6-1843 PROCEDURES.

A. Review Applicable Information. Before the inspection, the principal inspector (PI) or aviation safety inspector (ASI) should carefully review the following:

1) Parts 43, 65, and 145.

2) The RSM or QCM with reference to part 145, § 145.211 requirements.

3) Operations specifications (OpSpecs).

4) The Safety Performance Analysis System (SPAS). For additional information on SPAS data, see Volume 6, Chapter 9, Section 1, paragraph 6-1630.

5) The enhanced Vital Information Database (eVID).

6) The certificate-holding district office (CHDO) file.

B. Verify the Contents of the QCM. Verify the QCM contains the below minimum requirements, per § 145.211(c):

1) A description of the system and procedures for:

- Inspecting incoming raw materials for acceptable quality,
- Performing preliminary inspections of all maintained articles,
- Hidden damage inspection of articles involved in an accident,
- Proficiency of inspection personnel (see Volume 6, Chapter 9, Section 13),
- Current technical data for maintaining articles (see Volume 6, Chapter 9, Section 10),
- Qualifying and surveilling noncertificated persons who perform maintenance or alterations for the repair station,
- Performing final inspection and return to service of maintained articles,
- Calibrating measuring and test equipment, and
- Taking corrective action on deficiencies.

2) References to the manufacturer's inspection standards for a particular article, including reference to any data specified by that manufacturer.

3) A sample of inspection and maintenance forms. It should also include instructions for completing such forms or a reference to a separate forms manual.

4) Procedures for revising the QCM and notifying the CHDO of the revisions, including how often the repair station will notify the CHDO.

C. Check Inspection System. Review a sample of the documents used during maintenance. Examples of documents are: travel, work orders, inspection sheets, discrepancy sheets, and inspection of articles maintained. Confirm the repair station is performing and recording the below inspections per the RSM/QCM by verifying:

1) For all inspections:

- Whether the article is identified throughout the maintenance cycle, including parts contracted to noncertificated persons;
- When, where, and to what standard the repair station performs the inspection;
- Who can perform the inspection;
- Where, how, and on what form the repair station records the inspection results; and
- Disposition of the article after the inspection, depending on each possible result.

2) For an incoming raw materials inspection:

- Whether raw materials are identified per definitions in the RSM or QCM,
- The traceability of the materials back to the original lot,
- The handling of suspected unapproved parts (SUP), and
- Whether shelf life and expiration dates are within limits.

3) For preliminary inspection, check for compliance with Airworthiness Directives (AD) and associated Service Bulletins (SB).

4) For hidden damage inspection, this inspection must include a search for any secondary damage that could have resulted from an accident, such as fire or heat damage.

5) For in-process inspection:

- Determine if the repair station performed additional maintenance per the RSM or QCM, as described in a manufacturer maintenance manual; and
- Verify procedures for changing a process specification or accomplishing tasks out of sequence.

6) For continuity of inspection:

- The repair station accomplishes continuing-responsibility procedures for maintenance in progress if the repair station uses multiple shifts or consecutive inspectors;
- The repair station tracks maintenance progress with a status book, shift change log, or similar means; and

- Repair station personnel complete responsibilities even if inspectors are absent.

7) For performing a final inspection:

a) The inspector signing the final inspection or approval for return to service for the repair station is:

- On the roster of inspection personnel,
- Certificated under part 65, and
- Meets the requirements of § 145.155.

NOTE: When certificated repair stations are outside the United States, inspection personnel do not need certification per part 65. However, the requirements of § 145.155 do apply.

b) The repair station inspects for and certifies airworthiness for the work performed following maintenance, preventive maintenance, or alterations of articles.

c) The repair station takes corrective action using appropriate data when a final inspection is not satisfactory.

D. Review Contract Facility Audits. Verify that the repair station is qualifying and surveilling noncertificated persons performing maintenance, preventive maintenance, or alterations for the repair station. The PI should review the contracts and surveillance records and verify:

1) The noncertificated person has and uses a QC system equivalent to that of the repair station for the work performed.

2) Repair station personnel directly supervise the work performed by the noncertificated person.

3) The contract between the repair station and the noncertificated person includes a requirement permitting the FAA to inspect and observe the noncertificated person's work for the repair station.

4) The repair station periodically performs and records audits of the noncertificated person to confirm the person's qualification.

5) Repair station personnel confirm, through testing or inspection, and record that the noncertificated person performed the work satisfactorily and that the article was Airworthy before approving it for return to service.

E. Verify Use of European Aviation Safety Agency (EASA) Supplements. If the repair station has a current EASA certificate, review the EASA work packages to verify the repair station is following the additional requirements listed in the QC system EASA supplements.

6-1844 TASK OUTCOMES. Follow SAS Volume 10 guidance for Module 4 for Data Collection and Data Reporting. PIs follow Analysis, Assessment, and Action procedures for Module 5. Place all supporting paperwork in the certificate holder's office file. Update the eVID, as required.

6-1845 FUTURE ACTIVITIES. Follow SAS 8900.1 Volume 10 to plan future risk based surveillance in SAS.

RESERVED. Paragraphs 6-1846 through 6-1860.