VOLUME 6 SURVEILLANCE

CHAPTER 9 PART 145 INSPECTIONS

Section 7 Safety Assurance System: Inspect a Part 145 Repair Station’s Manual System

6-1751 REPORTING SYSTEM(S). Use Safety Assurance System (SAS) automation for reporting.

6-1752 OBJECTIVE. When evaluating a manual or revision, the principal inspector (PI) has the ability to use the SAS Element Design Data Collection Tool (ED DCT) and/or Custom DCT (C DCT) based on the scope and nature of the revision. When evaluating a Repair Station Manual (RSM), multiple elements are involved. See Volume 10, Chapter 1, Section 2 for the Master List of Functions (MLF) for the SAS elements.

6-1753 GENERAL. The repair station may have several manuals or documents in its quality control (QC), repair station, and training manual system. The certificate holder may combine into one section or chapter of the manual system portions required by Title 14 of the Code of Federal Regulations (14 CFR) part 145, § 145.209 and portions required by §§ 145.163 and 145.211.

NOTE: If the repair station is also a 14 CFR part 121 air carrier, the repair station may reference portions of the air carrier manuals to make up the RSM/Quality Control Manual (QCM) and training manuals, as long as the referenced portions meet the requirements of part 145 and 14 CFR part 43.

6-1754 COORDINATION REQUIREMENTS. If the repair station has an assigned Principal Maintenance Inspector (PMI) and a Principal Avionics Inspector (PAI), both inspectors should coordinate this inspection.

6-1755 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR Parts 1, 39, 43, 65, 91, 121, 125, 129, 135, and 145.
- Volume 1, Chapter 3, Section 1, Safety Assurance System: Responsibilities of Aviation Safety Inspectors.
- Volume 2, Chapter 11, Certification of a Part 145 Repair Station (for the certification process documents for certifying a part 145 repair station).
- Volume 6, Chapter 9, Section 11, Safety Assurance System: Inspect a Part 145 Repair Station’s Quality Control System.
- Volume 6, Chapter 9, Section 14, Safety Assurance System: Inspect, Review, and Approve a Part 145 Repair Station’s Training Program.
- Volume 10, Safety Assurance System Policy and Procedures.
- Federal Aviation Administration (FAA) Order 8120.16, Suspected Unapproved Parts Program.
- AC 120-78, Electronic Signatures, Electronic Recordkeeping, and Electronic Manuals.
- AC 145-9, Guide for Developing and Evaluating Repair Station and Quality Control Manuals.
- AC 145-10, Repair Station Training Program.
- United States Agreements with Other Aviation Authorities (AA).

**B. Forms.** None.

**C. Job Aids.** None.

6-1756 PROCEDURES.

**A. Review Applicable Information.** When evaluating a manual, use the ED DCT. If this task is performed as a revision, only the revised portion of the manual must be submitted.

**B. Before Inspection.** Before the inspection, the aviation safety inspector (ASI) should carefully review the following:

- Repair station training program and manual.
- Safety Performance Analysis System (SPAS).
- RSM/QCM. The PI or ASI should be familiar with the policies and procedures contained therein.

NOTE: There are some recommendations included in this order referenced from AC 145-9 that the regulations do not require. They have been included to assist the inspector and certificate holder/applicant in developing a more complete description of the repair station’s overall functions, responsibilities, and QC procedures.

**C. Inspect Air Agency Repair Station Manual (RSM).**

1) The manuals submitted by a certificate holder or applicant may be separate or may be combined into a single manual. The format should be consistent and must include all § 145.209 regulatory requirements, and portions required by §§ 145.163 and 145.211. The ASI must ensure that the manuals accurately reflect the procedures used in the performance of maintenance, preventive maintenance, or alterations. It is expected that, to fully describe the repair station’s inspection/quality system, there will be some procedures that may not be regulatory.

2) The RSM identifies personnel authorized to make and approve changes to the RSM.

3) Repair stations properly distribute and incorporate revisions. One way to verify this is by sampling RSMs throughout the facility.

4) All RSM copies and the CHDO copy are at the same revision level.
NOTE: Federal regulations do not require that the FAA review and accept revisions before implementation, provided the repair station follows the revision procedures in its manual. The repair station should have a procedure in its manual to recall revisions if the FAA finds a revision unacceptable.

5) A certificated repair station’s (CRS) current RSM/QCM must be accessible for use by repair station personnel. All repair station employees on all shifts must have access to the manual, regardless of the media used (electronic, CD-ROM, etc.).

NOTE: When the RSM at repair stations outside the United States is located in the work area and is in the national language, the repair station must provide to the FAA inspection team a supervisor or other person who can read the national language version to the team. In this way, the team can confirm that the national language RSM has the same information as the English language version. National language usage is an option for repair stations outside the United States. If a repair station elects to use the national language, it must provide a method for the FAA to confirm that the material is accurate.

NOTE: Verify the repair station located outside the United States has provided the FAA with an English language version of its RSM.

D. Hazardous Materials (hazmat). Each repair station that meets the definition of a hazmat employer under Title 49 of the Code of Federal Regulations (49 CFR) part 171, § 171.8 must have a hazmat training program that meets the training requirements of 49 CFR part 172 subpart H. The hazmat training manual should be a separate manual for approval under 49 CFR part 172 subpart H and not included as a requirement of the FAA training manual required by § 145.163.

NOTE: PIs should ensure that repair stations are aware of the 49 CFR regulations governing hazmat transportation. Any hazmat training manual received from a repair station must be submitted to the Office of Security and Hazardous Materials Safety (ASH) through the Hazardous Materials Branch Manager (HMBM). The definitions of “hazmat employer” and “hazmat employee” can be found in 49 CFR part 171, § 171.8.

E. Service Difficulty Reports (SDR) and Suspected Unapproved Parts (SUP).

1) The manual should include the following:

- Procedures for submitting an SDR.
- Procedures for detecting and reporting SUPs. Refer to Order 8120.16 for reporting criteria and reporting instructions.

2) A CRS must report to the FAA within 96 hours after it discovers any serious failure, malfunction, or defect of an article in accordance with § 145.221, and in a format acceptable to the FAA. This is usually in the form of an SDR. If the repair station performs maintenance, preventive maintenance, or alterations for an air carrier, the manual should also contain procedures on how it will notify the operator when submitting reports. The reporting
requirement of part 121, § 121.703(d) will be served when an aircraft is scheduled out of service (OTS) for more than 72 hours due to maintenance, preventive maintenance, or alteration activities. Occurrences and deficiencies must be reported 96 hours after the work on the aircraft is approved for return to service, unless the condition has been reported under another part or section of 14 CFR (e.g., 14 CFR part 21, § 21.3 or § 145.221). The report required must include as much of the following information as is available:

- Aircraft registration number;
- Type, make, and model of the article;
- Date of the discovery of the failure, malfunction, or defect;
- Nature of the failure, malfunction, or defect;
- Time since last overhaul, if applicable;
- Apparent cause of the failure, malfunction, or defect; and
- Other pertinent information that is necessary for more complete identification, determination of seriousness, or corrective action.

F. Review the QCM. Verify that:

1) Repair station personnel have access to the QCM.

2) Technical data referenced in the manual is current.

3) Forms listed in the manual are current, and the repair station is only using quality system forms listed in the manual.

4) Copies of the QCM are at the same revision level as the CHDO copy.

G. Review the Training Manual. Repair stations vary drastically in size, so an inspector can expect differences in repair station training programs. The training program must be appropriate to its organization and the work it performs. A repair station may document its training program in the RSM or in a separate document. An advantage to having the training program in a separate document is that it separates an approved training program from a nonapproved RSM/QCM.

1) If the training program is a separate document, verify it is approved and current.

2) If the training program is part of the RSM, verify that the section of the manual is an approved document and that the section is current.

NOTE: The ASI approves the program, but not the curriculum, course outline, lesson plans, or instructors.

3) For additional guidance, see Volume 6, Chapter 9, Section 14, and refer to AC 145-10.

H. Check the Air Carrier/Operators Manuals. Some repair stations perform maintenance, preventive maintenance, or alterations for air carriers and air operators conducting operations under 14 CFR parts 121, 125, 129, and 135. When this is the case, the repair station
must perform maintenance per the air carrier’s Continuous Airworthiness Maintenance Program (CAMP), the maintenance manual, or both.

1) Verify that the repair station has the information necessary to comply with this requirement. The repair station can base this information on contractual documents from the air carrier by clearly stating the source of the data (either the manufacturer or the air carrier) by which the repair station performs requested maintenance, along with other requirements of its program or maintenance manual. If the repair station uses sections of an air carrier maintenance program or manual, verify that they are controlled and current copies.

2) If the repair station performs an inspection for a certificate holder conducting operations under part 125, the repair station must perform inspections per the operator’s approved inspection program (AIP). Again, the operator must define requirements on contractual documents and must give the repair station sections of the operator’s inspection program. If the repair station uses such sections, verify that it is a controlled and current copy.

I. Repair Stations Working Under an Agreement.

1) For a CRS that is located in a country with which the United States has a Bilateral Aviation Safety Agreement (BASA)/Maintenance Implementation Procedures (MIP), or is under the Agreement Between the United States of America and the European Community on Cooperation in the Regulation of Civil Aviation Safety and associated Maintenance Annex Guidance (MAG), the repair station’s training program is addressed in accordance with that agreement. If FAA review and approval of a repair station training program is required, then the FAA approval requirement will be addressed as a “special condition” (SC) and addressed in the text of the applicable agreement. For example, if the training program review and approval is not identified as a “special condition” in the BASA/MIP or MAG, it has been determined that there is no difference in the applicable regulation and, therefore, does not require further approval by either Technical Agent (TA) (Civil Aviation Authority (CAA)).

2) Verify the use of the supplements. If the repair station has a current certificate, or approval from a country with whom the FAA has a BASA/MIP, verify the repair station is following the additional requirements listed in the supplement.

J. Review Electronic Manual(s).

1) A CRS must provide to its CHDO the current RSM/QCM in a format acceptable to the FAA. If the manuals or manual submitted are in electronic media format, they must be compatible with FAA electronic capabilities and free of any programs that would adversely affect that capability.

2) For electronic manual systems, the following concerns should be reviewed during the inspection:

a) Security and Access. Determine that:

- Only authorized personnel may make changes to the manual,
- The manual software protects access via passwords,
The repair station has trained employees to access the manual on the network, and
Supervisors and inspectors have access to the manual.

b) Revisions. Determine if:

- The user knows the manual has been revised and what content was changed, and
- Personnel verify the currency of individual disks/storage media before use.

6-1757 REPAIR STATION AUTHORIZATION TO MAINTAIN CANADIAN AIRCRAFT.

A. Maintenance, Preventive Maintenance, and Modifications. The repair station may perform maintenance, preventive maintenance, and modifications to Canadian certificated aircraft that are located within the United States. To perform this work, the repair station must continue to comply with part 145 and the SCs imposed by the BASA/MIPs.

B. Implementing Required Procedures. The MIP agreement requires U.S. air agencies and Canadian Approved Maintenance Organizations (AMO) to develop and implement stringent controls and procedures at their repair stations. These procedures must become a part of the RSM or a supplement to the manual. The requirements for the supplement are contained in the current United States–Canadian BASA/MIPs.

C. Transport Canada Civil Aviation (TCCA) Inspections. The repair station must allow TCCA, or the FAA on behalf of TCCA, to inspect it for continued compliance with part 145 and MIP SCs. The repair station must make its manual and the required supplement available for inspection. Investigations and enforcement by the TCCA may be undertaken in accordance with TCCA rules and directives. The repair station must cooperate with any investigation or enforcement action.

D. Canadian Supplement. A repair station performing maintenance, preventive maintenance, or modifications on aircraft that are operated in commercial air service under part VII of the Canadian Aviation Regulations (CARs) must have an accepted Canadian supplement to their RSM/QCM, according to the MIP between the governments of the United States and Canada. The MIP is at http://www.faa.gov/aircraft/repair/media/mip_can.pdf.

NOTE: The PI will accept the Canadian supplement or revision to the appropriate manual sections by sending the repair station a letter indicating the date, the document, manual, or revision number, and an acceptance statement. The PI should sign the transmittal document. If the repair station elects to embed their Canadian MIP requirements in their manual, the acceptance conveyance letter must quote each section of the manual where the Canadian requirements are found. The PI is only accepting the Canadian requirements of the manual.
6-1758 TASK OUTCOMES.

A. Complete the Task. Follow Volume 10 guidance for Module 4, Data Collection; PIs follow Module 5, Analysis, Assessment, and Action (AAA).

B. Document the Task. Place all supporting paperwork in the certificate holder’s office file. Follow SAS guidance for Module 4, Data Reporting. Update SAS Configuration Module 1 Vitals Information, as required.

C. 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.

6-1759 FUTURE ACTIVITIES. Follow Volume 10 to plan future risk-based surveillance in SAS.

RESERVED. Paragraphs 6-1760 through 6-1772.