CHAPTER 21

PROCEDURES FOR MAINTENANCE SPOT (WORK IN PROGRESS) INSPECTIONS

0.0 LIST OF EFFECTIVE PAGES

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1.0 OBJECTIVE

This chapter provides guidance for observing and analyzing in-progress maintenance operations for compliance with specific methods, techniques, and practices in the operator's inspection and maintenance program.

2.0 GENERAL

APPLICABLE CHECKLIST: **CL:O-AWS021**

A. Definition: Work package Job task control units developed by the operator for performing maintenance/inspections.

B. A typical work package may include the following—

- Component change sheets
- Inspection workcards
- Nonroutine workcards
- Appropriate sections of the maintenance procedures manual
- Engineering Orders (EOs)

C. It is important that Airworthiness Aviation Safety Inspectors (ASIs) are familiar with the type of aircraft to be inspected before performing the inspection. This can be accomplished through formal and on-the-job training.

INITIATION AND PLANNING

Initiation

Work in Progress inspections can be scheduled as part of the work program, but may be initiated whenever a problem is noted, including deficiencies noted during other types of inspections.

Planning

A. Work in Progress inspections are derived from the planned work program.

B. The number of spot inspections in the work program depends on the type and number of operator aircraft. After determining the type of aircraft to be inspected, confirm the aircraft availability and scheduled maintenance functions with operator personnel.

C. If the maintenance to be observed is known, review the operator's maintenance procedures manual to become more familiar with the maintenance task. The following should be reviewed—

1) Required Inspection Items (RII), if applicable
2) Forms used to document maintenance task
3) Latest manual revision and date
4) Special tools and equipment used to perform the maintenance task
5) Any other manual requirements relating to the maintenance task

D. Examining previous inspection findings provides the ASI with background information regarding problem areas found during other inspections. This information can give an indication of how effective past corrective actions were in resolving previously identified problem areas.

E. Information such as Airworthiness Directives (ADs), Service Difficulty Report Summaries, Maintenance Bulletins, and Action entries should be reviewed, when available, to become familiar with current service difficulty information. While performing the work in progress inspection, ensure that these conditions do not exist on the aircraft.

GENERAL GUIDELINES

A. Work-in-progress inspections are not normally conducted on a prior-notice basis.

B. There are many situations while performing other surveillance activities that afford the opportunity to perform spot inspections.

- For example, if a discrepancy is found during a ramp inspection that requires maintenance, a spot inspection of that maintenance function could be performed.

C. During performance of the maintenance in progress inspection, special attention should be paid to the following areas, as applicable—
    - AD's current status, including the method of compliance;
    - Overhaul records, including documentation containing the overhaul details and replacement time;
    - Major repair/alteration classifications and the use of approved data; and
    - Replacement time of life-limited parts.

SELECTING A MAINTENANCE TASK

A. Discuss with the maintenance supervisor what maintenance is currently being performed to determine what portions of that current maintenance/inspection should be observed.

B. Special emphasis should be placed on observing maintenance tasks that involve RII items.
Problem areas to look at include—
- Persons performing inspections outside of authorizations or limitations
- RII items not being properly identified or accomplished

PERFORMANCE STANDARDS

A. Each operator has a maintenance/inspection program for its individual maintenance operations. For maintenance to be performed on the operator's aircraft, there must be corresponding provisions and procedures in the operator's maintenance manual.

B. Each operator should have special procedures in the manual that ensures persons outside of the organization perform maintenance in accordance with the operator's maintenance manual.

C. When deviations from accepted procedures are noted, it must be brought to the attention of maintenance management so that corrective action must be taken immediately.

HEAVY INSPECTIONS

A. Special emphasis should be given to increased surveillance of transport category aircraft undergoing "C," "D," or similar "heavy inspections." This increased surveillance is due to the "aging" fleets of many air operators and reflects concern over structural fatigue and corrosion.

B. During the observance of a "heavy inspection," ASI's must pick an inspection area where maintenance has been started and where there could be possible fatigue or corrosion problems (especially an area that is not usually open to inspection, such as under the galley or lavatories).

C. If inspecting an area where maintenance is in progress, the following should be evaluated— If any noted deviation requires follow-up action based on risk analysis, process through the safety issue resolution process.

1) While performing their job functions, are personnel accomplishing their job task per the work package?

2) Does the Aging Aircraft/Corrosion Control program provide the necessary guidance to evaluate and respond in a timely manner to structural fatigue and corrosion?

D. If inspecting an area where maintenance has already been accomplished, the following should be evaluated:

- Are there any structural fatigue or corrosion problems evident?
- If there are, were they identified by the person(s) responsible for that area?
- If they were identified, was corrective action initiated and completed?

E. While inspecting these areas that are not normally accessible, look for evidence of structural major repairs.

- If a major repair was accomplished, review the approved data for that repair.

PROCEDURES

The assigned airworthiness inspector:

A. SELECT APPROPRIATE AIRCRAFT FOR INSPECTION

Determine the following from the operator's maintenance schedules—

- Aircraft availability;
- Aircraft type; and
- Type of maintenance being performed.

B. PREPARE FOR THE INSPECTION

Review the following—

1) Maintenance manual procedures for maintenance being performed (if available)
2) Operations specifications time limitations, when applicable to the maintenance task
3) Previous inspection findings
4) Applicable maintenance alert bulletins
5) Service difficulty information
6) Any new regulation and/or AD requirements affecting the aircraft to be inspected

C. PERFORM THE MAINTENANCE IN PROGRESS INSPECTION

1) Identify yourself to the maintenance supervisor and discuss the nature of your inspection.
2) Discuss with the maintenance supervisor/person in charge the status of the selected maintenance task.
3) Select a particular maintenance task within the work package.
4) Ensure that current maintenance procedures are available to the person(s) performing the work by accomplishing the following— If there are applicable ADs, the status of those AD must be determined. If possible, include a maintenance task that has been designated by the operator as an RII item(s).

   (a) Asking maintenance personnel for the maintenance procedures used to accomplish the work

   (b) Recording the date of the maintenance procedures being used to perform the maintenance task for future comparison with the maintenance manual master copy

5) Ensure that the maintenance is performed according to established procedures by comparing actual performance to the operator's approved maintenance/inspection manual procedures.

6) Ensure that the proper tools are being used by accomplishing the following—

(a) Observing that special tools referenced in the maintenance manual are being used
(b) Checking calibration due dates on precision tools, measuring devices, and testing equipment requiring calibration

7) Ensure that the operator has the facilities to properly perform the maintenance task.

8) Ensure that systems being maintained are not exposed to environmental conditions that could contaminate or damage components.

9) Ensure that maintenance recording is accomplished according to the operator's record keeping system.

10) Note any maintenance task deficiencies and include any copies of the documents that revealed the deficiencies.

11) For those maintenance tasks involving RII functions, determine that the persons observed performing these functions are appropriately certificated, authorized, and qualified.

3.0 CLOSE-OUT OF INSPECTION

1) Complete the appropriate checklist and document any findings.
2) Evaluate inspection findings to determine if safety issues exist.
3) Discuss the results with the organization’s management representative.
4) Submit the completed checklist to the General Manager//HOD in charge.