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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides for a safe, uniform method to perform routine maintenance on fire doors and to drop test the fire door RD-5. The procedure also provides for the performance of routine inspection and maintenance of rollup doors at ETF.

1.2 Scope

This procedure provides instructions for performing routine maintenance on fire doors and drop testing fire door RD-5. (Motor and bearings are factory-lubricated and require no lubrication.) Instructions are also provided for routine inspection and maintenance of rollup doors.

2.0 INFORMATION

None.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 Fire drop tests create a hazard to anyone below door way.

3.1.2 Counterbalance spring is under high tension. No adjustment is allowed to this spring during performance of the PM.

3.2 Equipment Safety

CAUTION - Holding release lever in UP position is critical to ensure fire door does not free fall, which will damage the door.

3.3 Radiation and Contamination Control

3.3.1 Work in radiological areas will be performed using a radiological work permit following review by Radiological Control per ALARA Work Planning procedure, TFC-ESHQ-RP_RWP-C-03.

3.4 Environmental Compliance

3.4.1 In the event of a spill/leak/release, notify the SOM/FWS and respond per ETF-ERP-85B-003, Emergency Spill or Release at ETF.
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies may be needed to perform this procedure:
- Chain lubricant, Lubrease Aerosol
- Door track lubricant, Slip Plate Aerosol
- Man lift
- Barricades for both sides of door entrance
- Chevron GST Oil 68
- Timing device (wrist watch accuracy is acceptable)
- C-clamps or vice grips, to stop door drop
- Leather work gloves.

4.2 Performance Documents

The following documents may be needed to perform this procedure:
- DOE-0336, Hanford Site Lockout/Tagout Procedure
- CVI No. V-13G1-002-902, Model H Model J Series Door Opener
- NFPA 80, Fire Doors and Fire Windows.

4.3 Field Preparation

4.3.1 **BARRICADE** immediate area on both sides of door to stop equipment and foot traffic.
5.0 PROCEDURE

Special Instructions
Sections of this procedure may be performed in any logical order, out of sequence, or in parallel.

5.1 Fire Door Inspection and Maintenance

5.1.1 VISUALLY INSPECT overall condition of fire door.

5.1.2 PERFORM functional check as follows:

5.1.2.1 FULLY OPEN door.

5.1.2.2 FULLY CLOSE door.

5.1.3 IF excess force is required to operate door, NOTIFY FWS as spring tension may be incorrect.

5.1.4 MOVE door to HALF-OPEN position.

5.1.5 CONFIRM door will remain in position.

5.1.6 MOVE door to OPEN position.

5.1.7 INSPECT each component for the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Damage</th>
<th>Wear</th>
<th>Misalignment</th>
<th>Good Condition</th>
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<tbody>
<tr>
<td>Chains</td>
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<td>Guide rails</td>
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<tr>
<td>Fusible links</td>
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</tbody>
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5.1.8 IF a component does not meet inspection criteria, CONTACT DA AND REPLACE per DA’s instructions.

5.1.8.1 IF component is replaced, RECORD in the Work Record or Comments Section of Data Sheet.

5.1.9 ENSURE the following have not vibrated loose:

- Nuts
- Bolts.
5.1 Fire Door Inspection and Maintenance (Cont.)

5.1.10 **LUBRICATE** drive chain AND

**REMOVE** excess lubricant.

5.1.11 **CLEAN** guide rails to allow door to move freely.

5.1.12 **CHECK** gear box oil level AND

**FILL** to required level.
5.2 Fire Door Drop Test (Door RD-5)

5.2.1 CONFIRM barricade is in place.

5.2.2 ENSURE personnel are clear of door way.

5.2.3 INSTALL C-clamp or vise grips at each guide rail. (Positioned to stop door travel twelve inches below door FULL-UP position.)

**CAUTION**

Holding release lever in UP position is critical to ensure fire door does not free fall, which will damage the door.

5.2.4 SIMULTANEOUSLY HOLD release lever in UP position so door remains open AND

REMOVE fusible link wire from lever.

NOTE - Release lever movement must not be assisted.

5.2.5 RELEASE lever.

5.2.6 CONFIRM ratcheting mechanism engages before door stops at C-clamp (vice grips) (i.e., ratchets down).

5.2.7 IF fire door falls to clamps, GO TO Step 5.2.9.

5.2.8 IF fire door does not move or free falls to clamp, GO TO Step 5.2.16.

5.2.9 RE-CONNECT release lever to fusible link wire.

5.2.10 MANUALLY RAISE door to FULL-UP position.

5.2.11 REMOVE C-clamp (vice grips) door stops.

5.2.12 REMOVE fusible link AND

RELEASE lever.

5.2.13 CONFIRM door begins to drop AND

START timing.

5.2.14 WHEN door contacts floor, STOP timing.
5.2 Fire Door Drop Test (Door RD-5) (Cont.)

NOTE - Acceptable drop time for door RD-5 is 5 to 20 seconds.

5.2.15 RECORD time for door to close on work package.

5.2.16 IF any of the following occurs, CONTACT FWS:
- Door drops too fast (less than 5 seconds)
- Door drops too slowly (more than 20 seconds)
- Door does not engage.

5.3 Resetting Door RD-5 after Fire Drop Test

5.3.1 CONFIRM release arm is disengaged (DOWN) position.

5.3.2 RAISE release arm to engaged position.

5.3.3 CONNECT release arm to fusible linked wire.

5.3.4 CONFIRM release arm is in full-up position.

5.3.5 MANUALLY OPEN door.
5.4 Rollup Door Inspection and Maintenance

NOTE - Step 5.4.1 does not apply to rollup doors 19A-RD-4 and 19A-RD-10.

5.4.1 BEFORE opening rollup door, NOTIFY HPT.

5.4.2 VISUALLY INSPECT overall condition of rollup door.

5.4.3 PERFORM functional check as follows:

5.4.3.1 FULLY OPEN door.

5.4.3.2 FULLY CLOSE door.

5.4.4 MOVE door to HALF-OPEN position AND CONFIRM door will remain in position.

5.4.5 OPERATE door AND CONFIRM safety switch reverses door travel when contacted.

5.4.6 APPLY lock and tag per DOE-0336.

5.4.7 REMOVE drive belt sheave from door opener assembly AND INSPECT friction disc for excessive wear.

5.4.7.1 IF friction disc is in good condition, REINSTALL sheave.

5.4.7.2 IF friction disc is damaged, CONTACT DA AND REPLACE per DA’s instructions.

5.4.8 INSPECT each component for the following, as applicable:

<table>
<thead>
<tr>
<th>Component</th>
<th>Damage</th>
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<td>Drive Belt</td>
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<td>Sheaves</td>
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<td>Fusible links</td>
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</tbody>
</table>
5.4 Rollup Door Inspection and Maintenance (Cont.)

5.4.9 IF a component does not meet inspection criteria, CONTACT DA AND REPLACE per DA’s instructions.

5.4.9.1 IF component is replaced, RECORD in the Work Record or Comments Section of Data Sheet.

NOTE - Vibration may cause mounting hardware to loosen over time. Periodic inspection is necessary to verify secure mounting.

5.4.10 ENSURE the following:
  • Elevated equipment and mounting hardware (motor, pulleys, sprockets, etc.) are securely in place
  • Nuts and bolts have not vibrated loose
  • Tension wheel is securely mounted to shaft with proper size bolt.

5.4.11 LUBRICATE drive chain AND REMOVE excess lubricant.

5.4.12 APPLY several drops of oil to manual disconnect mechanism moving parts.

5.4.13 ENSURE door will operate with hand chain AND PLACE in OPEN position.

5.4.14 IF excess force is required to operate door, NOTIFY FWS as spring tension may be incorrect.

5.4.15 INSPECT door guide rails for damage or dirt.

5.4.15.1 IF dirty, CLEAN guide rails to allow door to move freely.

5.4.15.2 IF damaged, NOTIFY FWS.

5.4.16 REMOVE lock and tag per DOE-0336.

5.4.17 OPERATE door to fully OPEN position AND CONFIRM limit switch operation.

5.4.18 OPERATE door to fully CLOSED position AND CONFIRM limit switch operation.
5.5 Restoration

5.5.1 REMOVE barricades from door way.

5.5.2 RESTORE to as-found conditions.

5.5.3 INFORM SOM test is complete and instrument/equipment/system may be returned to service.

5.6 Acceptance Criteria

Acceptance criteria has been met when steps in this procedure have been satisfactorily performed and results are recorded on the data sheet(s).
5.7 Review

5.7.1 INFORM FWS test is complete.

5.7.2 (FWS) REVIEW AND ENSURE the following:
- Completed data sheets meet the acceptance criteria
- Comments sections are filled out appropriately
- Work requests needed as a result of this procedure are identified and generated
- Work request number(s) of any work documents generated as a result of this procedure, are recorded in the Comments/Remarks section of the data sheet.

5.8 Records

This procedure is performed within a work package, as such, the procedure in its entirety will be maintained as a record per the Work Control process.

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.