RCA HVAC Exhaust Fans and Motors

Tank Farm Maintenance Procedure

USQ Not Required – ETF is a < Hazard Category 3 Radiological Facility

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides a safe, uniform method to perform maintenance on the RCA HVAC exhaust fans and motors, Joy Axivane Series 2000 (45A-F-1A, 45A-F-1B, 45A-F-1C).

1.2 Scope

This procedure provides instructions for three-month and six-month maintenance on RCA HVAC exhaust fans and motors.

2.0 INFORMATION

None.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 Hearing protection is required in the vicinity of the operating exhaust fans.

3.2 Radiation and Contamination Control

3.2.1 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.

3.3 Environmental Compliance

3.3.1 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:

- Chevron SRI NLGI2 grease (MSDS/SDS #010630)
- Other tools, equipment and supplies as identified by FWS/User.
5.0 PROCEDURE

5.1 Three-Month Maintenance

5.1.1 LUBRICATE controllable pitch mechanisms as follows:

5.1.1.1 CLEAN grease fitting on bell of fan housing.

5.1.1.2 IF fitting requires greasing, ADD up to 2.0 cubic inches (approximately) of grease to this fitting.

5.1.2 IF performing three-month maintenance only, GO TO Section 5.3.

5.2 Six-Month Maintenance

5.2.1 IF Three-Month Maintenance was just performed, GO TO Step 5.2.3

5.2.2 LUBRICATE controllable pitch mechanisms as follows:

5.2.2.1 CLEAN grease fitting on bell of fan housing.

5.2.2.2 IF fitting requires greasing, ADD up to 2.0 cubic inches (approximately) of grease to this fitting.

NOTE - Motor bearings may be lubricated with the motor running or stationary; preferred method is stationary with the motor warm.

- Controllable pitch mechanism bearings may be lubricated with the motor running or stationary.

5.2.3 LUBRICATE motor as follows:

5.2.3.1 CLEAN two grease fittings on barrel portion of fan.

5.2.3.2 ADD up to 2.5 cubic inches (approximately) of grease to these fittings.

5.2.4 REQUEST exhaust fan be started for operational checks.

5.2.5 CHECK fan assembly for unusual noise and vibrations.
5.2 Six-Month Maintenance (Cont.)

5.2.6 **OBSERVE** fan system after maintenance for full function:
- Fan starts
- Pitch controller responds to signal.

5.2.7 **IF** problems are found that require repair, **NOTE** actions required on work record.
5.3 Restoration

5.3.1 RESTORE to as-found configuration.

5.3.2 INFORM SOM maintenance is complete and instrument/equipment/system may be returned to service.

5.4 Acceptance Criteria

Acceptance criteria has been met when steps in this procedure have been satisfactorily performed and as-left values meet the specifications and tolerance(s) per the data sheet.

5.5 Review

5.5.1 INFORM FWS test is complete.

5.5.2 (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 (if applicable).

5.6 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.