Lubrication and Inspection of Miscellaneous ETF Pumps

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 instructions for a safe, uniform method to perform lubrication and inspection of miscellaneous pumps at ETF.

1.2 Scope

This procedure applies to perform lubricating and inspecting miscellaneous pumps at ETF.

2.0 INFORMATION

2.1 General Information

2.1.1 Maintenance/surveillance data sheets contain information on component number, grease or oil needed, and if component needs to be shut down to lubricate.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 Some locations require LOTO for protection against temperature, pressure or hazardous chemicals before breaching the system. Under these circumstances, lock and tag is required in accordance with procedure DOE-0336, Hanford Site Lockout/Tagout Procedure.

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:

- Oils:
  - Mobil DTE Heavy Medium (MSDS/SDS #017947)
  - Mobil DTE Light (MSDS/SDS #011561)
  - Chevron GST Oil ISO 68 (MSDS/SDS #010622A).
  - Chevron SRI grease NLGI 2 (MSDS/SDS #072995A)
  - Oil drain pans
  - Spray bottle of Simple Green and water for general equipment cleaning (MSDS/SDS #012261C).

4.2 Field Preparations

4.2.1 CONFIRM Operations personnel have configured system or equipment to allow procedure performance.

4.2.2 IF lock and tag is required by the controlling organization, CONFIRM it has been installed.

4.2.3 CONTACT HPT before taking lubricants into radiological areas, and/or before removing/draining lubricants from equipment in radiological areas.
5.0 PROCEDURE

Special Instructions
Sections 5.1 and 5.2 may be performed independently and in any logical order.

5.1 Lubrication and Inspection – Greased and Oil Filled Pumps

5.1.1 USE clean rag(s) AND
CLEAN the following:
- Pump
- Motor
- Base.

5.1.2 INSPECT component and motor frame for the following:
- Damage
- Cracks.

5.1.3 RECORD inspection results on data sheet.

5.1.4 CHECK AND TIGHTEN mounting hardware.

5.1.5 IF pump is oil-lubricated, DRAIN oil as specified on data sheet AND
INSPECT oil for the following:
- Excessive debris
- Metal shavings
- Water/emulsification.

5.1.6 IF oil shows signs of any conditions listed in Step 5.1.5, REFILL Pump with new oil AND
CONTACT FWS for further instructions.

5.1.7 IF drained oil appears to be in good condition, REFILL pump with drained oil.

5.1.8 GREASE component as specified on data sheet or task instructions.

5.1.9 USE drain plug to expel old grease where available AND
REQUEST Operations operate component as required to ensure proper lubrication and venting.

5.1.10 IF lubrication and inspection is complete, GO TO Section 5.3.
5.2 Lubrication and Inspection – Berm Sump Pumps 20B-P-3, 4, 5, 6

5.2.1 REMOVE sump pump motor cover plate.

5.2.2 INSPECT for the following:
   • Dirty oil
   • Motor not covered with oil
   • Oil level greater than two inches above motor.

5.2.3 IF any of the conditions in Step 5.2.2 are found, CONTACT FWS for further instructions.

5.2.4 IF oil level and condition is acceptable, REINSTALL sump pump motor cover plate AND GO TO Section 5.3.

5.3 Restoration

5.3.1 RESTORE to as found conditions.

5.3.2 INFORM SOM test is completed and instrument/equipment/system may be returned to service.

5.3.3 IF lock and tag was installed, REQUEST its removal.

5.4 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).

5.5 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.
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.

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.