Annual Inspection and Flow Verification of Eyewash Stations at Personnel Decon Trailer(s)

Tank Farm Maintenance Procedure

MAINTENANCE

USQ # GCX-2

Change history (≤ last 5 Rev-Mods)

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<tr>
<td>B-1</td>
<td>07/09/2018</td>
<td>Periodic Review</td>
<td>Updated shading, Records, removed word link, and revised vague phrases.</td>
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<td>08/21/2014</td>
<td>Periodic Review</td>
<td>Struck Section 5.1: Sinks 1 and 2. Made section 5.1 for Sink #1 and Section 5 2 for Sink #2. Struck all Item #s with reference to Data Sheet(s). Updated Records Section to meet Procedure Standard. Struck next periodic review date. Reworded Steps 5.1.4.2 &amp; 5.1.5.2, 5.1.4.3 and 5.2.4.3 per Engineering request.</td>
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1.0 PURPOSE

1.1 Purpose

The purpose of this Procedure is to provide the annual inspection and flow verification for the Personnel Decontamination Units (trailers).

1.2 Scope

This procedure is for use on the Personnel Decontamination Units (PDU) Eyewash Stations.

2.0 INFORMATION

2.1 Terms and Definitions

- PDU - Personnel Decontamination Unit

2.2 General Information

Components are identified using “X” as a substitute for Unit/Trailer identification numbers. For example, POR29X = POR291 or POR292 or POR293 as applicable.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Radiation and Contamination Control

3.1.1 Work in Radiological Areas will be performed using a Radiological Work Permit following review by Radiological Control per the ALARA Work Planning Procedure TFC-ESHQ-RP_RWP-C-03.

3.2 Environmental Compliance

3.2.1 Immediately report all leaks or unplanned discharges to Environmental using Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01.
3.2 Environmental Compliance (Cont.)

3.2.2 In accordance with TFC-ESHQ-ENV_RM-C-04, *Water Discharge at Tank Farms*, routine maintenance and operation activities may result in small incidental discharge of raw water as long as the limits and conditions listed below are met.

- No discharge from a single activity may exceed 60 gallons released to the soil.
- All appropriate best management practices (BMPs) shall be implemented to prevent unnecessary discharges.
- No ponding of liquids.
- During pre-job planning, measures to limit soil erosion will be incorporated into the work plan.
- During performance of the work, all measures to limit ponding and/or erosion will be implemented.

4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies may be needed to perform this procedure:

- Safety glasses
- Substantial Footwear
- Tape
- Wrench(es)
- Stopwatch
- Three (3) containers(s) with volumes marked at 1, and 2 gallons
- Sleevings
- Other tools, equipment, and supplies as identified by Shift Manager/OE/FWS/User.

4.2 Performance Documents

The following documents may be needed to perform this procedure:

- TO-020-029, Operate Personnel Decontamination Trailer

4.3 Field Preparation

4.3.1 **CONFIRM** the Personnel Decon Trailer is set up for operation per TO-020-029.

4.3.1.1 **IF** Eye Wash Stations are not operational, **EXIT** this procedure.
Annual Inspection and Flow Verification of Eyewash Stations at Personnel Decon Trailer(s)

5.0  PROCEDURE

5.1  Eyewash Station Sink #1 Annual Inspection

5.1.1  **CHECK** eyewash sink #1 is in the closed position by ensuring the operating handle is in the fully counter clock-wise (CCW) position for sink #1 (see Figure 1 for sink #1 and #2 example).

5.1.2  **IF** not open, **OPEN** the following valve (to sink #1 supply line):

- POR29X-EMER-V-124 (Sink #1)

5.1.3  **REFER** to Figure 1 for Eye Wash Stations Operation.

5.1.4  **PERFORM** the following on eyewash (station) sink 1:

5.1.4.1  **CONFIRM** eye wash sink 1 actuator is easily accessible.

5.1.4.2  **VERIFY** eyewash covers are installed and without deficiencies.

5.1.4.3  **IF** any deficiencies are found, **LIST** findings on Data Sheet Comments section.

5.1.4.4  **STAGE** a container to capture as much water as possible to reduce or eliminate adding water to the sump.

**NOTE -** Opening eyewash too rapidly while air exists in system will cause water to shoot to the ceiling.

5.1.4.5  **IF** there is a possibility that air is in the line(s), **TAPE** sleeving around the eye nozzles and direct into container.

5.1.4.6  **SLOWLY OPEN** eye wash sink #1 by moving flow handle (CCW) counter-clockwise **AND**

**ALLOW** air pockets to work through system until flow is continually smooth.

5.1.4.7  **CLOSE** eye wash sink #1 by moving handle fully clockwise.
5.1 Eyewash Station Sink #1 Annual Inspection (Cont.)

5.1.5 PERFORM the following on eyewash sink #1:

5.1.5.1 VERIFY the valve handle can be moved from OFF to ON position in one second or less AND

RECORD on Data Sheet.

5.1.5.2 VERIFY the flow remains ON without the use of the operator’s hands AND

RECORD on Data Sheet.

5.1.5.3 VERIFY water temperature is tepid (moderately warm or lukewarm) AND

RECORD on Data Sheet.

5.1.5.4 VERIFY the flow of water is non injurious to user; is provided to both eyes simultaneously AND

RECORD on Data Sheet.

Sink #1 Water Flow Verification (Minimum of 0.4 GPM)

5.1.6 PERFORM the following on eyewash sink #1:

5.1.6.1 STAGE a container to capture as much water as possible to reduce or eliminate adding water to the sump.

5.1.6.2 IF not already in place, TAPE the plastic sleeving around the two eyewash nozzles to funnel the flow into an empty container that has a 1 and/or 2 gallon graduated line.
5.1 Eyewash Station Sink #1 Annual Inspection (Cont.)

5.1.6.3 CHECK it takes \( \leq \) (less than or equal to) 2 minutes and 30 seconds (0.4 gpm) to fill the container to the 1-gallon graduated line,

OR

IF deemed necessary, CONFIRM that it takes \( \leq \) (less than or equal to) 5 minutes to fill the container to the 2-gallon graduated line.

a. RECORD results on Data Sheet.

5.1.6.4 IF criteria in Step 5.1.6.3 cannot be met, NOTIFY FWS for resolution.

5.1.6.5 REMOVE the plastic sleeving and tape from eyewash nozzle supply lines.

5.1.6.6 REPLACE the covers on eyewash nozzles.

5.1.6.7 CHECK all parts of the eyewash station and plumbing for leaks AND

IF fittings need to be tightened, TIGHTEN fittings.
5.2 Eyewash Station Sink #2 Annual Inspection

5.2.1 **CHECK** eyewash sink #2 is in the closed position by ensuring the operating handles are in the fully clock-wise position (see Figure 1 for sink #1 and #2).

5.2.2 **IF** not open, **OPEN** the following valve to sink #2 supply line.

- POR29X-EMER-V-123 (Sink #2).

5.2.3 **REFER** to Figure 1 for Eye Wash Stations Operation.

5.2.4 **PERFORM** the following on eyewash sink #2:

- **CONFIRM** eye wash sink #2 actuator is easily accessible.
- **VERIFY** eyewash covers are installed and without deficiencies.
- **IF** any deficiencies are found, **LIST** findings on Data Sheet Comments section.
- **STAGE** a container to capture as much water as possible to reduce or eliminate adding water to the sump.

**NOTE** - Opening eyewash too rapidly while air exists in system will cause water to shoot to the ceiling.

- **IF** there is a possibility that air is in the line(s), **TAPE** sleeving around the eye nozzles and direct into container.

- **SLOWLY OPEN** eye wash sink #2 by moving flow handle (CCW) counter-clockwise **AND**

  **ALLOW** air pockets to work through system until flow is continually smooth.

- **CLOSE** eye wash sink #2 by moving handle fully clockwise.

5.2.5 **PERFORM** the following on eyewash sink #2:

**NOTE** - Steps 5.2.5.1 through 5.2.5.4 may be repeated as necessary.

- **VERIFY** the valve handle can be moved from OFF to ON position in one second or less **AND**

  **RECORD** on Data Sheet.
5.2 Eyewash Station Sink #2 Annual Inspection (Cont.)

5.2.5.2 VERIFY the flow remains ON without the use of the operator’s hands AND

RECORD on Data Sheet.

5.2.5.3 VERIFY water temperature is tepid (moderately warm).

5.2.5.4 VERIFY the flow of water is non injurious to user; is provided to both eyes simultaneously AND

RECORD on Data Sheet.
5.2 Eyewash Station Sink #2 Annual Inspection (Cont.)

Sink #2 Water Flow Verification (Minimum of 0.4 GPM)

5.2.6 PERFORM the following on eyewash sink #2:

NOTE - Steps 5.2.6.1 through 5.2.6.7 may be repeated as necessary.

5.2.6.1 STAGE a container to capture as much water as possible to reduce or eliminate adding water to the sump.

5.2.6.2 IF not already in place, TAPE the plastic sleeving around the two eyewash nozzles to funnel flow into an empty container that has a 1 and/or 2 gallon graduated line.

5.2.6.3 CHECK it takes ≤ (less than or equal to) 2 minutes and 30 seconds (0.4 gpm) to fill the container to the 1-gallon graduated line, OR

IF deemed necessary, CONFIRM that it takes ≤ (less than or equal to) 5 minutes to fill container to the 2-gallon graduated line.

a. RECORD results on Data Sheet.

5.2.6.4 IF criteria in Step 5.2.6.3 cannot be met, NOTIFY FWS for resolution.

5.2.6.5 REMOVE the plastic sleeving and tape from eyewash nozzle supply lines.

5.2.6.6 REPLACE the covers on eyewash nozzles.

5.2.6.7 CHECK eyewash station and plumbing for leaks AND IF fittings need to be tightened, TIGHTEN fittings.
5.3 Restoration

5.3.1 IF any problems were encountered with calibration, INFORM FWS.

5.3.2 DISCONNECT AND REMOVE Test Equipment as necessary.

5.3.3 RECORD the Test Equipment information and calibration status on Data Sheet as applicable.

5.3.4 CHECK equipment restoration by observing indications are consistent with expected conditions.

5.3.5 PLACE the Decon Trailer in Standby Mode per TO-020-029.

5.3.6 NOTIFY Operations that testing is complete and system may be returned to normal operation.

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, as 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.

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.
Figure 1 - Sink #1 and #2 Eye-Wash Stations
Annual Inspection and Flow Verification of Eyewash Stations at Personnel Decon Trailer(s)

Figure 2 - PDU System Layout

General Notes:
1. Design Spec - WRFS-000008
2. Contract # - 41448
3. One water supply tank and two greywater tanks are mounted below the floor.
4. Proceed with all equipment designated with the following units observed to be noted:
   East PDU POR 201-EMER
   West PDU POR 202-EMER
Figure 3 - PDU Supply Water Flow Diagram

General Notes

1. Precede all equipment designations with the following unless otherwise noted:
   EAST: POR292- EMER-
   WEST: POR 291- EMER-