Operation of LERF Encasement Line Purge Air

Tank Farm Plant Operating Procedure

USQ # EV-18-1617, Rev. 1

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CHANGE HISTORY (≤ LAST 5 REV-MODS)

<table>
<thead>
<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-3</td>
<td>11/28/2018</td>
<td>Operation Request WRPS-PER-2018-2039</td>
<td>Clarify request to have Pipefitter remove pipe cap in Start and Shutdown LERF Encasement Line Purge Air Sections. Updated to Figure 2 to identify location of pipe cap. Updated Figure 1 with current configuration and valve types</td>
</tr>
<tr>
<td>C-2</td>
<td>10/10/2018</td>
<td>Operational Corrections</td>
<td>Deleted Sections 4.2.2, added additional steps to 5.0 to correct step sequences, and replaced Figure 1.</td>
</tr>
<tr>
<td>C-1</td>
<td>04/02/2018</td>
<td>Periodic Review</td>
<td>Records Section Update</td>
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<tr>
<td>C-0</td>
<td>05/11/2015</td>
<td>Periodic review</td>
<td>Replaced TF-PLN-86 with GHA statement. Modified Radcon Statement</td>
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<td>B-0</td>
<td>04/18/2013</td>
<td>Periodic review</td>
<td>Clarification added to Step 5.1.9.</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for operating the LERF encasement line purge air system.

1.2 Scope

This procedure involves the purge air system and the encasement line from the 242-A Evaporator to the LERF facility.

2.0 INFORMATION

2.1 General Information


3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

3.1.1 It has been determined that the hazards associated with the performance of this procedure are adequately addressed by a General Hazards Analysis (GHA).

3.2 Equipment Safety

3.2.1 The LERF transfer encasement line is made of fiberglass and is rated for a maximum pressure of 60 psi.
3.3 Radiation and Contamination Control

3.3.1 When this procedure is worked in radiological areas, an approved radiological work permit (RWP) is required. If radiological conditions or work performed falls outside the scope of the RWP, all work activities must be discontinued until a new or revised RWP has been issued in accordance with TFC-ESHQ-RP_RWP-C-03.

3.3.2 When work is performed in or when work will result in a high contamination, high radiation, or an airborne radioactivity area, an approved work package must be developed which is reviewed by Radiological Control per ALARA work planning procedure TFC-ESHQ-RP_RWP-C-03.

3.3.3 Initial entry into the LERF Basin 43 Catch Tank area requires HPT presence and contamination surveys be performed.

4.0 PREREQUISITES

4.1 Performance Documents

The following documents may be needed to perform this procedure:
- H-2-88766, P&ID LERF Basin & ETF Influent Evaporator
- H-2-99001, Compressed Air System
- H-2-79614, LERF Basin 43 Catch Tank Arrangement.

4.2 Field Preparation

4.2.1 CONFIRM Shift Manager has given permission to operate the LERF Encasement Line Purge Air system.
5.0 PROCEDURE

5.1 Start LERF Encasement Line Purge Air

5.1.1 REQUEST Effluent Treatment Facility perform the following:

5.1.1.1 VERIFY valve 60M-43T is CLOSED.

5.1.1.2 REQUEST Pipefitter to REMOVE pipe cap downstream of valve 60M-43T.

5.1.1.3 POSITION the following valves:

<table>
<thead>
<tr>
<th>Valve</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>HV-43-2</td>
<td>OPEN</td>
</tr>
<tr>
<td>60M-43T</td>
<td>OPEN</td>
</tr>
<tr>
<td>60M-43R</td>
<td>OPEN</td>
</tr>
<tr>
<td>60M-43S</td>
<td>CLOSED</td>
</tr>
</tbody>
</table>

5.1.1.4 NOTIFY 242-A Shift Manager when Step 5.1.1.3 has been complete.

5.1.2 ENSURE valve 1-18B is in the OPEN position.

5.1.3 ENSURE valve BV-LRF-1 is CLOSED.

5.1.4 ENSURE valve BV-LRF-2 is CLOSED.

5.1.5 SLOWLY OPEN valve BV-LRF-2 AND CHECK pressure indicating gauge PI-LRF-1 reads 0 psig.

5.1.6 IF PI-LRF-1 does not read 0 psig, CLOSE valve BV-LRF-2 AND NOTIFY Shift Manager of the problem.

5.1.7 SLOWLY OPEN valve BV-LRF-1.

NOTE - Gauge PI-LRF-1 should now read approximately 10 psig.

5.1.8 IF PI-LRF-1 does not read reasonably close to 10 psig (8 – 12 psig), CLOSE valve BV-LRF-1 AND NOTIFY Shift Manager that PCV-LRF-1 needs to be re-adjusted.
5.1.9 WHEN PI-LRF-1 reads approximately 8 psig (6-10 psig), LISTEN AND FEEL for air flow coming from rupture disc PSE-LRF-1 indicating a ruptured disc.

5.1.9.1 IF rupture disc PSE-LRF-1 has been ruptured, PERFORM the following:

a. CLOSE valve BV-LRF-1
b. CLOSE valve BV-LRF-2
c. NOTIFY Shift Manager
d. PERFORM a contamination survey at rupture location.

NOTE - If the rupture disc is still intact, final adjustment of flow and pressure may be set at this time

5.1.9.2 IF the rupture disc PSE-LRF-1 is intact, REQUEST Shift Manager specify desired flow and pressure.

5.1.10 IF less air flow through FI-LRF-1 is desired, SLIGHTLY CLOSE valve BV-LRF-2 AND

As necessary to maintain desired pressure, READJUST PCV-LRF-1 in conjunction with setting the airflow.
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### 5.2 Shutdown LERF Encasement Line Purge Air

5.2.1 **CLOSE** the following valves in the order given below:

5.2.1.1 **CLOSE** valve BV-LRF-1.

5.2.1.2 **CLOSE** valve BV-LRF-2.

5.2.2 **REQUEST** Effluent Treatment Facility Shift Manager perform the following:

5.2.2.1 **CLOSE** valve 60M-43T (HV-43-2 should remain OPEN).

5.2.2.2 **REQUEST** Pipefitter to **REPLACE** pipe cap downstream of valve 60M-43T.

### 5.3 Records

The performance of this procedure generates no records.
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Figure 1 - Adjustment Locations

FIGURE LEGEND

- Sight Glass
- Filter
- Pressure Gauge
- Pump

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Figure 2 – LERF Catch Tank

![Diagram of LERF Catch Tank]

- LDE-43-2
- 60M-43S
- Cap
- HV-43-2
- DR-M17
- Pipe Cap
- Sight Glass
- 60M-43R