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>
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<tbody>
<tr>
<td>F-1</td>
<td>05/30/2018</td>
<td>Periodic Review</td>
<td>Update to the records section and added place keeping devices on flexible steps.</td>
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<tr>
<td>F-0</td>
<td>06/04/2015</td>
<td>Periodic Review</td>
<td>Changed 5.1 Note to a “non action” statement.</td>
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<td>5.1.8 changed &quot;normal operating pressure” to “at least”</td>
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<td></td>
<td>Elaborated on minimal hearing protection in step 5.2.1</td>
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<td>Moved Warning to above applicable step.</td>
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<td>Clarified third time failure criteria for step 5.2.5.</td>
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<tr>
<td>E-1</td>
<td>04/09/2012</td>
<td>Process improvement and meet Standard 1 requirements</td>
<td>Modified Warning and moved hearing protection requirement.</td>
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<td>Modified Steps 3.1.2 and 5.2.5.</td>
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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for functionally testing pressure relief valve(s) under operating system conditions.

1.2 Scope

This procedure involves demonstrating that the pressure relief valve is operational only.

Adjustment of pressure relief valve set points or capacity is not within the scope of this procedure. Pressure relief valve certification is not part of this procedure.

2.0 INFORMATION

None
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** - Exposure to excessive noise or discharge streams, hot piping, and leaking fluids may result in personnel injury.

3.1.1 If a lock and tag is required during the performance of this procedure, perform Lockout/Tagout in accordance with DOE-0336, Hanford Site Lockout/Tagout Procedure.

3.1.2 Failure to use protective equipment when working on or near pressurized and/or heated systems could result in serious injury. Job specific protective equipment requirements should be addressed during the pre-job brief and be in accordance with TFC-ESHQ-S_IS-C-02.

3.2 Radiation and Contamination Control

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.

4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies will be needed to perform this procedure:

- Safety glasses
- Long sleeves shirt and pants or coverall, made of cotton or other natural fibers
- Hearing protection (e.g. ear plugs, ear muffs)
- Leather Gloves.

4.2 Field Preparation

Facility condition/system line-up must be established and documented as part of the work instruction authorizing performance of this procedure.
5.0 PROCEDURE

5.1 Inspect Relief Valve

NOTE - This procedure does not include the adjustment of pressure relief valve set points or capacity.

- Steps 5.1.1 through 5.1.11 may be worked in any logical order.

_____ 5.1.1 ENSURE that pressure relief valve is properly sealed.

_____ 5.1.2 ENSURE that name plate data is as specified on the data sheet.

_____ 5.1.3 RECORD any improper seals data in the comment section of the data sheet.

_____ 5.1.4 CHECK for the following:

- external leakage
- deterioration of the pressure relief valve
- deterioration of related vessel and piping components.

_____ 5.1.5 RECORD any evidence of leakage or deterioration in the comment section of the data sheet.

_____ 5.1.6 ENSURE valve is free of external foreign substances that will interfere with the free operation of the pressure relief valve.

_____ 5.1.7 RECORD any evidence of un-removable foreign substances in the comment section of the data sheet.

_____ 5.1.8 ENSURE system is at least 75% of the pressure relief valve set pressure, but not to exceed the maximum pressure specified in work package.

_____ 5.1.9 ENSURE that there are no intervening stop valves between the vessel and the pressure relief valve.

_____ 5.1.10 ENSURE there are no objects between the pressure relief valve and the point of discharge.

_____ 5.1.11 ENSURE that the contents may be safely and properly discharged.
5.2 Perform Test of Pressure Relief Valve

5.2.1 DON the following PPE as a minimum:
- Safety Glasses
- Long sleeves shirt and pants or coverall, made of cotton or other natural fibers
- Leather Gloves
- Foam ear plugs or ear muffs.

5.2.2 ENSURE all non-essential personnel are excluded from test area.

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**WARNING**

Exposure to excessive noise or discharge streams, hot piping, and leaking fluids may result in personnel injury.

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5.2.3 MANUALLY OPERATE ring/lever AND

**HOLD** for about 5 seconds, or until full flow through pressure relief valve is obtained.

5.2.4 RELEASE ring/lever AND

**ENSURE** pressure relief valve has seated.

5.2.4.1 IF pressure relief valve fails to lift or seat for the first time, **REPEAT** Steps 5.2.3 and 5.2.4.

5.2.4.2 IF pressure relief valve fails to lift or seat for the second time, **REPEAT** Steps 5.2.3 and 5.2.4.

5.2.4.3 IF pressure relief valve fails to lift or seat for the third and final time, **IMMEDIATELY NOTIFY** FWS AND

**RECORD** the failure in comment section of the data sheet.
5.3 Restoration

5.3.1 IF any problems were encountered with Functional Test, INFORM FWS.

5.3.2 ENSURE all equipment has been restored to normal or as found configuration.

5.3.3 ENSURE information on Data Sheet(s) is filled out.

5.3.4 NOTIFY Operations that testing is complete and system may be returned to desired configuration.

5.4 Acceptance Criteria

Testing and acceptance criteria will be in accordance with work package instructions.

5.5 Review

5.5.1 INFORM FWS the test is complete.

5.5.2 FWS REVIEW AND ENSURE the following:

- Completed Data Sheets meet the acceptance criteria
- Data Sheet(s) and 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.