Changes “Other Than Inconsequential” Require These Additional Reviews:

JRG

USQ # EV-17-0579-S, Rev. 0

<table>
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<tr>
<th>Rev-Mod</th>
<th>Release Date</th>
<th>Justification</th>
<th>Summary of Changes</th>
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<tr>
<td>C-1</td>
<td>08/28/2017</td>
<td>PCA as the result of a periodic review.</td>
<td>Updated Radcon statement and added a document to the list in Section 4.2.</td>
</tr>
<tr>
<td>C-0</td>
<td>05/05/2015</td>
<td>Periodic review comment resolution</td>
<td>Deleted reference to Step referencing TFC-PLN-86. Added Step on fall protection per the JHA. Deleted “Job Specific from RWP statement. Deleted Note and bullet from Step 5.1.1.2. Tied Step 5.1.5 to OSD.</td>
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<tr>
<td>B-2</td>
<td>03/20/2014</td>
<td>Request to revise to match field conditions.</td>
<td>Removed slurry specifications and added “with” in note in Section 5.0 and Step 5.1.1.</td>
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<tr>
<td>B-1</td>
<td>01/30/2014</td>
<td>Evap DSA and Upgrades</td>
<td>Removed ACs that no longer exist, added AC that now applies, added procedure that is used for Admin locks, and modified steps to reflect field conditions.</td>
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<tr>
<td>B-0</td>
<td>03/22/2013</td>
<td>Periodic review</td>
<td>Modified Steps 3.3.1 to address comment by Rad that a High Risk RWP will be developed when requested by Operations so Step 4.3.2 was added. Changed “are” to “is” in Note above Step 5.1.1.</td>
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242-A Evaporator Adjust PB-1 Seal Water Needle Valve

5.0 PROCEDURE

5.1 Adjust PB-1 Seal Water Flow Needle Valve

5.2 Records
1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides the instruction and performance requirements for adjusting the PB-1 seal water flow needle valve at the 242-A Evaporator.

1.2 Scope

This procedure identifies requirements for entry into the 242-A Pump Room and Evaporator Rooms to adjust the PB-1 seal water needle valve if flow is not within normal specifications.

2.0 INFORMATION

None
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

The hazards encountered during the performance of this procedure are covered by a General Hazards Analysis (GHA).

3.2 Equipment Safety

CAUTION - A loss of seal water to PB-1 due to misalignment of valving or other means may cause permanent damage to the seals.

3.3 Radiation and Contamination Control

3.3.1 When work is performed in or when work will result in a high contamination, high radiation or an airborne radioactivity area then a Job Specific RWP is required following review by Radiological Control per ALARA Work Planning procedure TFC-ESHQ-RP_RWP-C-03.

3.3.2 The opening of any system or component within a Radiological Area requires the presence of a Health Physics Technician to verify contamination control.

3.4 Limits

HNF-15279, Technical Safety Requirements for the 242-A Evaporator

SAC 5.8.2 Evaporator and Pump Room Access and Pump Room Cover Block Control.

OPERATING SPECIFICATION DOCUMENTS (OSDs)

OSD-T-151-00012 Operating Specifications for the 242-A Evaporator Crystallizer (242-A)

12.2.3 PB-1 Recirculation Pump Characteristics

| Min/Max Seal Water Pressure: | 35/90 psig |
| Min/Max Seal Water Flowrate: | 0.25/3.0 gpm |
4.0 PREREQUISITES

4.1 Special Tools, Equipment and Supplies

The following supplies may be needed to perform this procedure:
- Screw driver or nut driver
- Other tools, equipment and supplies as identified by Shift Manager/OE/FWS.

4.2 Performance Documents

The following documents may be needed to perform this procedure:
- TFC-OPS-OPER-C-04, Access and Key Control for Operation Facilities
- TFC-ESHQ-RP_MON-C-11, High Radiation Area Controls
- TFC-ESHQ-RP_RWP-C-03, ALARA Work Planning
- TO-600-210, Operate PB-1 and PB-2 Seal Water Filter System
- TFC-OPS-OPER-C-22, Control and Use of Administrative Locks.

4.3 Field Preparation

4.3.1 PRIOR to scaffolding use, REQUEST scaffolding used to gain access to the PB-1 seal water needle valve be inspected.

4.3.2 ENSURE a Radiological Work Permit to address the work scope has been developed.

4.3.3 PRIOR to entry into the Pump Room and during the performance of the work activity, CONFIRM building ventilation is operational.
5.0 PROCEDURE

5.1 Adjust PB-1 Seal Water Flow Needle Valve

NOTE - RWP is utilized for entry into Evaporator or Pump Rooms.

- Senior Supervisor Watch is required during Pre-job Brief and entry into Evaporator or Pump Rooms.
- Senior Supervisor Watch can view work activities through pump room viewing window.
- Personnel cannot be present in the pump or evaporator rooms when the Evaporator is in OPERATION MODE.

5.1.1 PRIOR to entry in the pump room or evaporator room to adjust PB-1 seal water flow, ENSURE Evaporator is in SHUT DOWN mode. (SAC 5.8.2)

5.1.1.1 CONFIRM with Shift Manager the following:

- 242A Evaporator is in SHUTDOWN MODE
- Slurry Lines SL-167 and SL-168 are not PHYSICALLY CONNECTED to an ACTIVE WASTE TRANSFER PUMP not under Administrative Lock
- Tank Farms Waste Transfer Pump (feed pump) 241-AW-P-102-1 and 242-A Evaporator WASTE TRANSFER PUMP (pump room sump steam jet pump) J-B-1 are under Administrative Lock.

5.1.1.2 CONFIRM Shift Manager has performed the following:

- Checked out High Radiation Area key for access to the Evaporator and Pump Rooms per TFC-OPS-OPER-C-04.
5.1 Adjust PB-1 Seal Water Flow Needle Valve (Cont.)

5.1.2 **PERFORM** Evaporator/Pump Room entry.

5.1.3 **IF** Void Limit or Safe Condition level for either whole body dose rates or Contamination Levels, as defined on RWP, is exceeded at any time while performing work, **PERFORM** the following:

5.1.3.1 **STOP** work.

5.1.3.2 **PLACE** personnel in safe location outside of Pump and Evaporator rooms.

5.1.3.3 **SUSPEND** further work.

5.1.3.4 **NOTIFY** Shift Manager of conditions.

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**CAUTION**

A loss of seal water to PB-1 Recirculation due to misalignment of valving or other means may cause permanent damage to the seals

5.1.4 **IF** hose clamp is installed on needle valve handle, **LOosen** hose clamp.

5.1.5 **ADJUST** needle valve until Fl-CA1-1 (G12, F6/4) PB-1 Seal Water Flow indicates a flow of 0.60 to 1.0 gpm (0.90 preferred). (OSD-T-151-00012)

5.1.6 **AFTER** adjusting needle valve, **IF** a hose clamp was installed on the needle valve handle, **RE-TIGHTEN** hose clamp to handle.

5.1.7 **CONFIRM** post job review has been conducted by Shift Manager.

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5.2 Records

**NOTE** - No records are generated during the performance of this procedure.