Obtain 242-A Slurry Samples

Tank Farm Plant Operating Procedure

USQ # EV-18-0530-S Rev. 3

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This procedure requires annual periodic reviews that include review by the JRG.

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions for obtaining slurry samples using the 242-A Slurry Sampler.

1.2 Scope

This procedure applies to the 242-A Facility Slurry Sampler, and associated equipment.

2.0 INFORMATION

2.1 Terms and Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ARA</td>
<td>Airborne Radiation Area</td>
</tr>
<tr>
<td>Steel pig</td>
<td>Special container designed to hold a sample bottle.</td>
</tr>
</tbody>
</table>
2.2 General Information

2.2.1 Following is a list of the valves associated with the Slurry sampling system and the function they perform.

<table>
<thead>
<tr>
<th>Valve</th>
<th>Function</th>
</tr>
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<tbody>
<tr>
<td>A-1</td>
<td>Raw Water Supply</td>
</tr>
<tr>
<td>HV-PA-SMPL-1</td>
<td>Pressurized Air Sampling System Supply</td>
</tr>
<tr>
<td>HV-PA-SMPL-2</td>
<td>Pressurized Air Sampling System Supply</td>
</tr>
<tr>
<td>RWV-1</td>
<td>Raw Water Supply</td>
</tr>
<tr>
<td>RWV-1A</td>
<td>Raw Water Supply</td>
</tr>
<tr>
<td>RWV-P1-1</td>
<td>Pressure Indication Isolation</td>
</tr>
<tr>
<td>RWV-2</td>
<td>Inlet Water Filter Isolation</td>
</tr>
<tr>
<td>RWV-3</td>
<td>Outlet Water Filter Isolation</td>
</tr>
<tr>
<td>RWV-4</td>
<td>Water Filter Inlet Pressure Indication Isolation</td>
</tr>
<tr>
<td>RWV-5</td>
<td>Water Filter Outlet Pressure Indication Isolation</td>
</tr>
<tr>
<td>RWV-6</td>
<td>Raw Water Filter Bypass Valve</td>
</tr>
<tr>
<td>HV-F1-1</td>
<td>FLUSH-SAMP-F-1</td>
</tr>
<tr>
<td>HV-F1-2</td>
<td>SAMP-F-1 SAMPLE BLOCK</td>
</tr>
<tr>
<td>HV-F1-3</td>
<td>Manual Cycle Valve</td>
</tr>
<tr>
<td>HV-F2-1</td>
<td>FLUSH-SAMP-F-2</td>
</tr>
<tr>
<td>HV-F2-2</td>
<td>FLUSH-RETURN JUMPER</td>
</tr>
<tr>
<td>HV-F2-3</td>
<td>SLURRY SHUT OFF</td>
</tr>
<tr>
<td>HV-F2-4</td>
<td>3” SL SAMP-LE LOOP DRAIN</td>
</tr>
<tr>
<td>HV-F2-5</td>
<td>FLUSH-SUPPLY JUMPER</td>
</tr>
<tr>
<td>HV-F2-6</td>
<td>SAMP-F-2 SAMPLE BLOCK</td>
</tr>
<tr>
<td>HV-F2-7</td>
<td>Manual Cycle Valve</td>
</tr>
<tr>
<td>RWV-12</td>
<td>ENCLOSURE SPRAY</td>
</tr>
<tr>
<td>RWV-13</td>
<td>SAMP-F-2 SAMPLE SPRAY</td>
</tr>
<tr>
<td>RWV-7</td>
<td>H-RW-1 BYPASS</td>
</tr>
<tr>
<td>RWV-8</td>
<td>H-RW-1 OUTLET ISOLATION</td>
</tr>
<tr>
<td>RWV-8A</td>
<td>H-RW-1 INLET ISOLATION</td>
</tr>
<tr>
<td>RWV-9</td>
<td>BFP-RW-10 INLET ISOLATION</td>
</tr>
<tr>
<td>RWV-11</td>
<td>BFP-RW-10 OUTLET ISOLATION</td>
</tr>
<tr>
<td>RWV-15</td>
<td>Raw Water Sample Supply</td>
</tr>
<tr>
<td>PAV-1</td>
<td>Air Isolation to Feed Sampler</td>
</tr>
<tr>
<td>PAV-2</td>
<td>Air Isolation to Slurry Sampler</td>
</tr>
</tbody>
</table>

2.2.2 During the performance of this procedure when the sampler door is opened, the Senior Supervisory Watch and Radcon Oversight must be present and are marked JRG.

2.2.3 Any changes to the procedure sections where the sampler door is opened requires approval from the Joint Review Group (JRG) and are marked JRG.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** - Opening sampler enclosure door too rapidly may cause drip tray, (which does not drain well) to spill liquid on the floor and can cause contamination spread.

**WARNING** - The airlock and sample cabinet doors are potential pinch points and proper care must be exercised when using, otherwise personnel injury may occur.

3.1.1 PPE requirements for slurry sampling – nitrile or latex gloves (2 pair), chemical resistant apron, safety glasses and arm sleeves.

3.2 Radiation and Contamination Control

3.2.1 Dose rates may increase with enclosure door open. Minimize time spent with door open. When possible, use the enclosure door as shielding when accessing the sample bottle holder.

3.2.2 Personnel should take measures to reduce exposures such as moving to a low dose standby area while waiting for drips to drain from the catch tray.

3.2.3 When work is performed in, or when work will result in high contamination, high radiation, or an airborne radioactivity area, personnel must work under the current RWP pertaining to slurry sampling.

3.2.4 The 242-A Steel Pig may be stored prior to transport. If the Pig, containing a sample, is to be stored prior to loading into the Pig Shipping Container, the job specific RWP must be followed.

3.3 Environmental Compliance

3.3.1 Notify Environmental per Environmental On-Call list in accordance with TFC-ESHQ-ENV_FS-C-01 for spills or releases.

3.3.2 At a minimum, Pre and Post Job surveys (smears) shall be taken and documented. Documentation to include Radiological Survey Reports.
4.0 **PREREQUISITES**

4.1 **Special Tools, Equipment and Supplies**

The following supplies may be needed to perform this procedure:
- Mixed Waste Container
- Rags
- Waste Container(s)
- 60 ml Nalgene Plastic Sample Bottles (alternate sample bottles may be specified by engineering)
- Steel Pig(s)
- String
- Small plastic bags (to line the pigs)
- Absorbent material
- Pig carrying hand cart (or equivalent approved device)
- Chemical resistant apron (e.g., vinyl) and arm sleeves
- Portable GFCI
- Tamper proof seals
- Metal TY Wraps.

4.2 **Performance Documents**

The following procedures may be needed to perform this procedure:
- Site form A-6003-962, Chain of Custody/Sample Analysis Request
- 242-65J-002, Sampling Operations at 242-A Evaporator
- T0-080-800, Prepare and Load Hedgehog II Waste Sample Containers & Steel PIGs.
4.3 Field Preparation

NOTE Steps in section 4.3 can be performed in any logical order.

4.3.1 COMPLETE Pre-start activity on Checklist 1.

4.3.2 ENSURE Steel Pig has been prepared and inspected per T0-080-800.

4.3.3 COMPLETE Data Sheet 1 for each sample to be taken.

4.3.4 IF Steel Pig is not acceptable, PERFORM the following actions to obtain an acceptable Steel Pig:

   4.3.4.1 RECORD serial number of unacceptable Steel Pig and reason for rejection in the "Comments" section of Data Sheet 1.

   4.3.4.2 OBTAIN another Steel Pig.

   4.3.4.3 GO TO Step 4.3.1 to inspect and prepare new Steel Pig.

4.3.5 CONTACT the authorized shipper to ensure they have the resources to transport the samples.

4.3.6 PERFORM Valve Lineup for Slurry Sampling Outside of Rad Area

   4.3.6.1 COMPLETE Checklist 2.

NOTE TO-600-005 can be used as confirmation.

4.3.7 CONFIRM BFP-RW-11 has passed its PM, EE-108653, and is within its next due date.
5.0  PROCEDURE

5.1  Perform Radiological Control Prerequisites

5.1.1  PERFORM the following:

5.1.1.1  ENSURE Load-Out Room curtain is CLOSED.

5.1.1.2  ENSURE pump storage room is posted as Airborne Radiation Area (ARA) and air sampling is performed while ARA is occupied.

5.1.1.3  ENSURE a pre-job dose rate and contamination survey of exterior of cabinet and general area floor has been performed.

5.1.1.4  TAPE plastic catch bag to front of sampler below sampler door.

5.1.1.5  PLACE absorbent ground cover beneath sampler enclosure door.
5.2 Perform Sampler Room Valve Lineup

5.2.1 ENSURE the following are CLOSED: (Figure 1)
- RWV-18
- RWV-19
- RWV-20
- RWV-21.

5.2.2 ENSURE the following valves are OPEN: (Figure 1)
- RWV-16
- RWV-17.

5.2.3 IF sampler enclosure lighting has not been plugged in, PLUG IN a portable GFCI into the electrical outlet before plugging the cabinet lighting in.

5.2.4 CHECK sampler enclosure lighting is adequate to perform slurry sampling.

5.2.4.1 IF lighting is not adequate, NOTIFY Shift Manager.

5.2.5 ENSURE Valve HV-F2-3 is OPEN. (O) (Figure 2)

5.2.6 ENSURE Valve HV-F2-5 is CLOSED. (C) (Figure 2)

5.2.7 CHECK Valve HV-F2-4 is CLOSED by turning valve handle clockwise to the stops. (Figure 2)

5.2.8 ENSURE Valve HV-F2-1 is in Sample Vent (SV) position. (Figure 2)

5.2.9 ENSURE Valve HV-F2-6 is CLOSED (C) by turning valve handle to the stops. (Figure 2)

5.2.10 ENSURE the following valves are CLOSED (refer to Figure 2):
- RWV-12

NOTE - Valve HV-F2-2 has been verified stuck in the closed position. Valve is closed when the valve indicator points to the indicator line on front of sampler enclosure, not to the “C”.

5.2.11 CHECK that Valve HV-F2-2 is CLOSED. (Figure 2)

5.2.12 OPEN Air Valve PAV-2 (refer to Figure 2).

5.2.13 ENSURE Valve RWV-11 (located on second level of AMU Room) is OPEN. (Figure 1)
5.3 **Flush Sampler**

5.3.1 **OPEN** Manual Cycle Controller Box (refer to Figure 3).

5.3.2 **CHECK** air pressure gauge in Manual Cycle Controller Box is reading 70 to 80 psig (refer to Figure 3).

5.3.3 **IF** air pressure gauge reading is not 70 to 80 psig, **ADJUST** air pressure to 70 to 80 psig with adjusting knob on Valve PCV-SMPL-2.

5.3.4 **IF** air pressure cannot be adjusted to 70 to 80 psig, **PERFORM** the following:

5.3.4.1 **STOP** work.

5.3.4.2 **NOTIFY** Shift Manager of air pressure.

5.3.4.3 **SUSPEND** sampling evolution AND **EXIT** the area.

5.3.5 **TURN** adjusting knob on front of sampler enclosure door to position bottle holder so it is not under dropout Valve HV-F2-6. (Figure 2)

**NOTE** - Activation of the slurry sampling leak detection alarm is an expected alarm during slurry sampling evolutions.

5.3.6 **NOTIFY** control room operator that slurry sampling is about to begin and the leak detection alarm is expected.

5.3.7 **OPEN** (O) dropout Valve HV-F2-6 (Figure 2) by turning valve handle to the stops.

5.3.8 **ENSURE** Manual Cycle Controller Box is OPEN (refer to Figure 3).

5.3.9 **PRESS** down on hand Valve HV-F2-7 for approximately 2 seconds. (Figure 3)
5.3 Flush Sampler (Cont.)

5.3.10 **REPEAT** Step 5.3.9 up to fifteen times or until liquid comes out of dropout line.

5.3.11 **CLOSE** Manual Cycle Controller Box (refer to Figure 3).

5.3.12 **CLOSE** (C) dropout Valve HV-F2-6 (Figure 2) by turning valve handle to the stops.

5.3.13 **WHEN** valve RWV-13 is opened in next step, **CHECK** difference in pressure between PI-F-H-3 and PI-F-H-4 is less than 20 psig. (Figure 1)

5.3.14 **BEFORE** opening RWV-13, **ENSURE** any extra personnel are in a low dose standby area.

5.3.15 **OPEN** Valve RWV-13 (Figure 2) for approximately 10 to 20 seconds to flush purged liquid down the drain.

5.3.16 **IF** the difference in pressure is greater than 20 psig, **OPEN** RWV-6. (Figure 1)

5.3.17 **CLOSE** Valve RWV-13 (Figure 2) **AND**

**WAIT** 1 minute to allow drip tray to drain.
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5.4 Perform Visual Leak Check and Position Bottle in Sampler (JRG)

5.4.1 NOTIFY Senior Supervisory Watch and Radcon Oversight that the sampler door will be opened.

**WARNING**

-The airlock and sample cabinet doors are potential pinch points and proper care must be exercised when using, otherwise personnel injury may occur.
-Opening sampler enclosure door too rapidly may cause drip tray, (which does not drain well) to spill liquid on the floor and can cause contamination spread.

5.4.2 CUT metal TY Wrap securing sampler enclosure door.

5.4.3 UNLATCH AND SLOWLY OPEN sampler enclosure door.

5.4.4 REQUEST HPT to perform a dose rate survey and contamination survey at sampler enclosure door.

5.4.5 PERFORM visual leak check of sampler enclosure and piping.

5.4.6 IF any leaks are observed, PERFORM the following:

5.4.6.1 ENSURE Sampler door is CLOSED AND LATCHED.

5.4.6.2 STOP work.

5.4.6.3 SUSPEND sampling evolution and exit the area.

5.4.6.4 NOTIFY Shift Manager of leakage.

5.4.6.5 REQUEST maintenance support to determine leak and repair.
5.4 Perform Visual Leak Check and Position Bottle in Sampler (JRG) (Cont.)

5.4.7 PLACE sample bottle into sample bottle holder.

**WARNING**

The airlock and sample cabinet doors are potential pinch points and proper care must be exercised when using, otherwise personnel injury may occur.

5.4.8 CLOSE AND LATCH sampler enclosure door.

5.4.9 TURN adjusting knob on front of sampler enclosure door, to center sample bottle directly under discharge port of sampler.
5.5 Fill Sample Bottle

NOTE - Activation of the slurry sampling leak detection alarm is an expected alarm during slurry sampling evolutions.

5.5.1 NOTIFY Control room operator that slurry sampling is about to begin and the Leak Detection Alarm is expected.

5.5.2 OPEN (O) dropout Valve HV-F2-6 (Figure 2) by turning valve handle to the stops.

5.5.3 REQUEST control room operator to document time and current SpG as read on DI-CA1-3 at time of sampling.

5.5.4 OPEN Manual Cycle Control Box (refer to Figure 3).

5.5.5 PRESS DOWN hand lever on Valve HV-F2-7 (Figure 3) for 2 seconds.

5.5.6 IF sample bottle needs readjusting, TURN adjusting knob on front of sampler enclosure door, to center sample bottle directly under discharge port of sampler.

5.5.7 REPEAT Step 5.5.5 until sample bottle is at least \( \frac{3}{4} \) full.

5.5.8 CLOSE Manual Cycle Control Box (refer to Figure 3).

5.5.9 CLOSE (C) dropout valve HV-F2-6, by turning valve handle to the stops.

5.5.10 TURN adjusting knob on front of sampler enclosure door, to stage sample bottle closer to the exit of the Sample Enclosure Door.
5.6 Rinse Exterior of Filled Sample Bottle (JRG)

**WARNING**

The airlock and sample cabinet doors are potential pinch points and proper care must be exercised when using, otherwise personnel injury may occur.

Opening sampler enclosure door too rapidly may cause drip tray, (which does not drain well) to spill liquid on the floor and can cause contamination spread.

5.6.1 **UNLATCH AND SLOWLY OPEN** sampler enclosure door.

**NOTE** - When performing step 5.6.2 care should be used to avoid disturbing the sample bottle and possibly causing the sample bottle to be spilled.

5.6.2 **REQUEST** HPT to perform a dose rate and contamination survey at sampler door using care to avoid disturbing the sample bottle and potentially spilling sample bottle contents.

5.6.3 **CAP** sample bottle without removing bottle from bottle holder.

5.6.4 **CLOSE AND LATCH** sampler enclosure door.

5.6.5 **TURN** adjusting knob on front of sampler enclosure door to center sample directly under flush nozzle.

5.6.6 **ENSURE** any extra personnel are in a low dose standby area, BEFORE opening RMV-13.

5.6.7 **FLUSH** exterior of sample bottle, as follows:

5.6.7.1 **OPEN** RWV-13 (Figure 2) let flush for approximately 10 to 20 seconds **AND**

IF sample bottle needs readjusting, **TURN** adjusting knob on front of sampler enclosure door to center sample directly under flush nozzle.

5.6.7.2 **CLOSE** RWV-13 (Figure 2) **AND**

**WAIT** 1 minute to allow drip tray to drain.
5.7 Remove Sample from Enclosure (JRG)

**WARNING**

The airlock and sample cabinet doors are potential pinch points and proper care must be exercised when using, otherwise personnel injury may occur.

Opening sampler enclosure door too rapidly may cause drip tray, (which does not drain well) to spill liquid on the floor and can cause contamination spread.

5.7.1 **UNLATCH AND SLOWLY OPEN** sampler enclosure door.

5.7.2 **REMOVE** sample bottle **AND**

**TIGHTEN** cap.

5.7.3 **VISUALLY CHECK** if solids or organic layer is visible **AND**

**REQUEST** control room Operator document observations by end of work shift.

5.7.4 ** WIPE** sample bottle to remove liquid on outside of bottle.

**NOTE** Steps 5.7.5 through 5.7.7 may be performed at the same time.

5.7.5 **CLOSE AND LATCH** sampler enclosure door.

5.7.6 **PERFORM** contact and 30 cm dose rate surveys of sample bottle.

5.7.7 Carefully **PASS** bottle to Loadout Room.
5.7 Remove Sample from Enclosure (JRG) (Cont.)

NOTE - Steps 5.7.8 through 5.7.10 may be performed at the same time as Step 5.7.11.

5.7.8 PLACE sample bottle into plastic bag lined Steel Pig.

5.7.9 REPLACE Steel Pig cover.

5.7.10 INSTALL nuts and lock washers on Steel Pig.

5.7.11 IF additional slurry samples are to be taken, GO TO Step 5.4.3.

5.7.12 IF slurry sampling is completed, SECURE slurry sampler enclosure door with metal TY Wrap.

5.7.13 STAGE Steel Pig(s) at location for easy sample pickup.
5.8 Flush Sample Discharge Port

Flush Sampler Discharge Port (refer to Figure 2):

5.8.1 NOTIFY Control Room Operator that the Slurry sampling leak detection alarm is expected and may alarm during flush.

5.8.2 CLOSE air supply Valve PAV-2.

5.8.3 SLOWLY SET Valve HV-F2-1 to SF (SAMPLE FLUSH) position.

5.8.4 IF the difference in pressure (between PI-F-H-3 and PI-F-H-4) is greater than 20 psig, OPEN RWV-6. (Figure 1).

5.8.5 SLOWLY OPEN dropout Valve HV-F2-6 by turning valve handle to the stops to control flush.

5.8.6 FLUSH Sampler discharge port for approximately 1 minute.

5.8.7 AFTER Sampler discharge port has flushed approximately 1 minute, SLOWLY SET valve HV-F2-1 to SV (SAMPLE VENT) position.

5.8.8 AFTER Sampler discharge port has drained of water for approximately 2 minutes, SLOWLY CLOSE (C) valve HV-F2-6 by turning valve handle to stops.

5.8.9 ENSURE that the Slurry sampling leak detection alarm is not in alarm.

5.8.9.1 IF the slurry sampling leak detection alarm is in alarm, NOTIFY Control Room Operator AND Shift Manager.

5.8.9.2 OBTAIN approval from FWS or Shift Manager before proceeding.

5.8.10 IF Flushing Sample cabinet, GO TO 5.9.

5.8.11 ENSURE Raw water isolation and Filter Bypass Valves RWV-6 and RWV-11 (Figure 1) are CLOSED (located in the AMU Room).

5.8.12 UNPLUG sampler enclosure lighting and GFCI from electrical outlet.
5.9 **Flush Sampling Cabinet**

**NOTE** - Sections 5.9 and 5.10 may be performed in parallel at the direction of the Shift manager/OE/FWS.

- This section of the procedure can be used without a Senior Supervisory Watch to flush the sampling cabinet (do not open door during flush evolution) to reduce contamination levels and dose rates.
- Valves A-1, HV-PA-SMPL-1, and HV-PA-SMPL-2 are located on first level of AMU and will require a ladder to access them.
- Valve RWV-11 is located on second level of AMU Room.
- Valves can be set to required positions in any order.
- This section can be performed as a standalone section.

5.9.1 **IF** during the performance of this section, it is required to check the water filter for plugging, **REQUEST** permission from Shift Manager to manipulate RWV-6. (Figure 1)

5.9.2 **IF** the AMU Room valving was completed per Section 4.3.6, **GO TO** Step 5.9.4.

5.9.3 **IF** AMU Room valving has not been completed, **PERFORM** Checklist 2 (refer to Figure 1).

**NOTE** - Valves RWV-16, RWV-17, RWV-18, RWV-19, RWV-20 and RWV-21 are located in sampler room (refer to Figure 1)

5.9.4 **ENSURE** the following are CLOSED: (Figure 1)
- RWV-18
- RWV-19
- RWV-20
- RWV-21.

5.9.5 **ENSURE** RWV-16 and RWV-17 are OPEN.

5.9.6 **ENSURE** sampler enclosure doors are closed and latched.

5.9.7 **NOTIFY** Control Room Operator that the Slurry sampling leak detection alarm is expected and may alarm during flush.

5.9.8 **ENSURE** Valve RWV-11 (Figure 1) is OPEN (located on second level of AMU Room).
5.9 Flush Sampling Cabinet (Cont.)

5.9.9 WHEN valve RWV-12 is opened in next step, CHECK difference in pressure between PI-F-H-3 and PI-F-H-4 is less than 20 psig. (Figure 1)

5.9.10 IF the difference in pressure is greater than 20 psig, OPEN RWV-6 (Figure 1).

5.9.11 OPEN Valve RWV-12 for approximately 10 to 30 seconds to flush inside of Sample Enclosure. (Figure 2)

5.9.12 CLOSE Valve RWV-12. (Figure 2)

5.9.13 ENSURE that the Slurry sampling leak detection alarm is NOT in alarm.

5.9.13.1 IF the slurry sampling leak detection alarm is in alarm, NOTIFY Control Room Operator AND Shift Manager.

5.9.13.2 OBTAIN approval from FWS or Shift Manager before proceeding.

5.9.14 ENSURE Valves RWV-6 and RWV-11. (Figure 1) are closed.

5.9.15 ENSURE Sampler Enclosure lighting and GFCI are NOT plugged into the electrical outlet.

5.9.16 REQUEST Post job survey be performed.

5.9.17 DOWNPOST area as survey allows.
5.10 Prepare Sample(s) for Shipment.

NOTE - Sections 5.9 and 5.10 may be performed in parallel at the direction of the Shift manager/OE/FWS.

5.10.1 NOTIFY Sample Operations samples are ready for transport to 222-S.

5.10.2 OBTAIN Chain of Custody/Sample Analysis Request, (site form A-6003-962) AND

RECORD the following information on the forms:
- Collector
- Date and Time
- For additional Chain of Custody (COC) relinquishing information refer to procedure 242-65J-002.

5.10.3 COMPLETE radiological survey of Steel Pig.

5.10.4 ENSURE Radioactive Material Tag is complete and attached.

5.10.5 PLACE the Tamper Proof Seal on the PIG.

5.10.6 ENSURE Pig Shipping Container has been prepared and inspected per T0-080-800.

_________________________/ ________________________ / ________________
Signature                  Print (First & Last)                        Date
WRPS Sampling Operations

5.10.7 CAREFULLY LOWER Steel PIG into PIG shipping container.

5.10.8 ENSURE Pig Shipping Container has been loaded and inspected per T0-080-800.

_________________________/ ________________________ / ________________
Signature                  Print (First & Last)                        Date
WRPS Sampling Operations

5.10.8.1 ACCOMPANY samples to 222-S Labs.
5.11 Restoration

5.11.1 **ENSURE** data for Steps 5.5.3 and 5.7.3 have been documented by Control Room Operator.

5.11.2 **ENSURE** pump storage room is down posted from Airborne Radiation Area (ARA).

5.11.3 **ENSURE** Loadout room curtain is opened.

5.11.4 **PERFORM** Post Job – ALARA Review OR **SCHEDULE** Post Job – ALARA Review with Scheduler.
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5.12 Records

5.12.1 **PERFORM** the following for records identified within this procedure.

5.12.1.1 **RECORD** the number of times the record was generated in applicable column.

OR

**PLACE** a check mark (✓) in the N/A column.

5.12.1.2 **SUBMIT** the package for verification of completed records.

<table>
<thead>
<tr>
<th>Records Submittal Checklist</th>
<th>Number of times completed</th>
<th>N/A (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.10 Prepare Sample(s) for Shipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 5.10.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 5.10.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checklists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checklist 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checklist 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Sheets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Sheet 1 - 242-A Steel Pig Inspection Check-Off Sheet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FWS/OE/Shift Manager **SEND** the completed records to the Central Shift Office for records retention.

_________________________ / __________________________ / __________
Signature Print (First & Last) Date
FWS/OE/Shift Manager

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
# Obtain 242-A Slurry Samples

## Checklist 1 – Prestart Activities

<table>
<thead>
<tr>
<th>Prestart Activity</th>
<th>Check Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure Mixed Waste Drum has been acquired and has been staged at designated storage area.</td>
<td></td>
</tr>
<tr>
<td>Ensure Steel Pig has been staged at designated sample storage area.</td>
<td></td>
</tr>
<tr>
<td>Inside of Steel Pig has been prepared to accept sample holder.</td>
<td></td>
</tr>
<tr>
<td>Sample number has been recorded on sample bottles with permanent markers.</td>
<td></td>
</tr>
<tr>
<td>The necessary number of sample Pigs have had inspections per Data Sheet 1.</td>
<td></td>
</tr>
<tr>
<td>Site form A-6003-432, Chain of Custody/Sample Analysis Request has been completed.</td>
<td></td>
</tr>
<tr>
<td>Building exhaust fan K1-5-2 or K1-5-3 is operating.</td>
<td></td>
</tr>
<tr>
<td>Prejob has been performed with Senior Supervisory Watch and Radecon First Line Supervisor present.</td>
<td></td>
</tr>
<tr>
<td>PB-1 (G12/6, F5) Recirc Pump status is CF-ON.</td>
<td></td>
</tr>
<tr>
<td>The SpG is at the level specified by Process Memo.</td>
<td></td>
</tr>
<tr>
<td>Slurry sample flow as read on FI-CA1-3 (G12, F10) is greater than 30 gpm.</td>
<td></td>
</tr>
<tr>
<td>The quarterly functional test of leak detector has been performed in accordance with approved plant procedures (EE-002468)</td>
<td></td>
</tr>
<tr>
<td>Ensure backflow preventer BFP-RW-10 testing is current (EE-001596).</td>
<td></td>
</tr>
<tr>
<td>Ensure backflow preventer BFP-RW-11 testing is current (EE-108653) (HNF-15279 DF 6.2)</td>
<td></td>
</tr>
<tr>
<td>Prior to starting sampling evolution, notify sampling operations.</td>
<td></td>
</tr>
<tr>
<td>Ensure Onsite Routine Radioactive Shipment Record (ORRSR or Blue Card) is available for use.</td>
<td></td>
</tr>
</tbody>
</table>

Reviewed By: _______________________________________________________________________

Signature / Print (First & Last) / Date

Shift Manager/FWS

Comments:___________________________________________________________________________
## Checklist 2 – Valve Line-up Outside Rad Areas

<table>
<thead>
<tr>
<th>VALVE</th>
<th>POSITION</th>
<th>OPERATOR INIT</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>* A-1</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* HV-PA-SMPL-1</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* HV-PA-SMPL-2</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* RWV-1</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-1A</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-PI-1</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-2</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-3</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-4</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-5</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-6</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-7</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-8</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-8A</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* RWV-9</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RWV-11</td>
<td>CLOSED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* RWV-15</td>
<td>OPEN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reviewed By: 

[Signature] / [Print (First & Last)] / [Date] 

Shift Manager/FWS 

* - Status Seal 

**NOTE:** Valves A-1, HV-PA-SMPL-1, and HV-PA-SMPL-2 will require a ladder to access them. Valves RWV-9 and RWV-11 are located on second level of AMU Room. Valves can be set to required positions in any order.
PIG Number: ______________________
Note: Make additional copies of this Data Sheet 1 as required.

<table>
<thead>
<tr>
<th>Description</th>
<th>Results</th>
<th>Operator’s Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Serial Number</td>
<td>#</td>
<td></td>
</tr>
<tr>
<td>Steel Pig Serial Number</td>
<td>#</td>
<td></td>
</tr>
<tr>
<td>Studs and nuts are not stripped</td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>Nuts and lock washers present</td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>Steel pig free of visual damage</td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>Steel pig lid easy to remove</td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>Internal cavity free of foreign material</td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>Media insert in place (for stability)</td>
<td>YES/NO/NA</td>
<td></td>
</tr>
<tr>
<td>Sample bottle fits into Steel Pig</td>
<td>YES/NO</td>
<td></td>
</tr>
<tr>
<td>Plastic bag inserted into Steel Pig</td>
<td>YES/NO</td>
<td></td>
</tr>
</tbody>
</table>

This PIG is acceptable for use.

__ / __________________________ / ____________________
Signature  Print (First & Last)  Inspection Date
Operator

Comments: Record Comment, then Sign, Print, and Date

__ / __________________________ / ____________________
Signature  Print (First & Last)  Date
Operator

Reviewed By: __________________________ / __________________________ / ______________
Signature  Print (First & Last)  Date
Shift Manager/FWS
Signature Sheet 1
All personnel performing signature required steps shall enter their printed name, signature, and initials below.

<table>
<thead>
<tr>
<th>Name (Printed First &amp; Last)</th>
<th>Signature</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
Obtain 242-A Slurry Samples

Figure 1 - Water and Air Supply for Sampler System Flow Diagram
Figure 2 - Slurry Sampler System Flow Diagram

COMPRESSED AIR from Valve HV-PA-SMPL-2 (Figure 1)

Air Pressure Regulator

HV-F2-7 MANUAL CYCLE CONTROL (See Fig. 4)

PAV-2
PCV-SMPL-2
VENT

To Recirc Nozzle A

From RWV-12
(RWV-17 (Figure 1)

Slurry Sampler SAMP-F-2

Air Operator

HV-F2-3
HV-F2-6
HV-F2-4

From Recirc Nozzle B

Sample Bottle

To Sump

From RWV-13
(RWV-17 (Figure 1)

From RMV-17 (Figure 1)
Obtain 242-A Slurry Samples

Figure 3 - Manual Cycle Control for Slurry Samplers

Note: This drawing is typical for Feed and Slurry sections.
The air pressure regulator is PCV-SMPL-1 for the Feed and PCV-SMPL-2 for the Slurry section.

The manual cycle control valve is HV-F1-3 for the Feed and HV-F2-7 for the Slurry section.