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WP 05-WH1710

Revision 21

72-B RH Processing

Technical Procedure

EFFECTIVE DATE: 09/01/10

Craig Suggs
APPROVED FOR USE

CONTINUOUS USE PROCEDURE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	ISSUED DATE	DESCRIPTION OF CHANGES
21	09/01/10	Added new 2nd bullet under Precautions and Limitations for adequate communication between WHT and RCT and following the procedure to be sure no steps are bypassed. Other editorial changes in document.

INTRODUCTION [1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 13]

This procedure provides instructions for unloading the remote-handled (RH) transuranic (TRU) 72-B shipping container and preparing RH waste canisters for downloading to the underground (U/G) disposal area.

The Automated Job Hazard Analysis (AJHA) PROD-88 coincides with this procedure.

Performance of this procedure generates the following record(s), as applicable. Any records generated are handled in accordance with departmental Records Inventory and disposition Schedules.

- Attachment 1 - RH Waste Processing Data Sheet
- Narrative Logbook

REFERENCES

BASELINE DOCUMENTS

- Title 10 *Code of Federal Regulations* (CFR) Part 71, "Packaging and Transportation of Radioactive Material"
- 10 CFR Part 835, "Occupational Radiation Protection"
- 40 CFR Part 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions"
- DOE Order 5400.5, *Radiation Protection of the Public and the Environment*
- DOE Standard 1090-2007, *Hoisting and Rigging*
- NRC-Docket-71-9212, *RH-TRU 72-B Certificate of Compliance*
- NRC-Docket-71-9212, *Safety Analysis Report for the RH-TRU 72-B Waste Shipping Package*
- DOE/WIPP-02-3283, *RH Packaging Program Guidance*
- DOE/WIPP-02-3284, *RH Packaging Operations Manual*
- DOE/WIPP-07-3372, *Waste Isolation Pilot Documented Safety Analysis*
- DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*
- DOE/WIPP-09-3427, *Waste Data System User's Manual*

- WP 04-IM1000, Issues Management Processing of WIPP Forms
- WP 08-PT.03, WIPP Quality Assurance Program Plan for Type B Packaging
- WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description

REFERENCED DOCUMENTS

- WP 05-WH1701, Road Cask Transfer Car Operation
- WP 05-WH1704, Facility Cask Transfer Car (41-H-003) Operation
- WP 05-WH1705, RH Canister Transfer System
- WP 05-WH1713, Facility Cask and Facility Cask Rotating Device
- WP 05-WH1714, RH Cask Preparation Station 41-Z-076
- WP 05-WH1719, 25-Ton Cask Unloading Room Crane
- WP 05-WH1721, 6.25-Ton Fixed Hoist and Facility Grapple
- WP 05-WH1741, 140/25-Ton Remote Handling Crane 41-T-001
- WP 05-WH1744, Surface RH Transuranic Mixed Waste Handling Area Inspections
- WP 05-WH1746, 2.5-Ton Jib Crane 41-T-201
- WP 05-WH1758, RH Waste Handling Abnormal Operations
- WP 05-WH4401, Waste Handling Operator Event Response
- WP 08-NT3001, Volume Control of Parking Area Storage Unit
- WP 08-NT3020, TRU Waste Receipt
- WP 12-HP1100, Radiological Surveys
- WP 12-HP2001, Abnormal Radiological Conditions
- WP 12-HP4000, Emergency Radiological Control Responses
- EA04IM1000-1-0, WIPP Form

PRECAUTIONS AND LIMITATIONS [13]

- Only personnel qualified as a RH-TRU 72-B Process Waste Handling Technician/Engineer (WHT/WHE), or trainees operating under the direct supervision of a qualified RH-TRU 72-B Process WHT/WHE, are authorized to perform the waste handling (WH) activities specified in this procedure.

- Adequate communication should be maintained between the WHT and Radiological Control Technician (RCT) throughout the performance section of this procedure. Accuracy in the steps should be maintained to **ensure** steps are in the proper sequence and are not bypassed.

- If a manifest discrepancy is discovered during the processing of polychlorinated biphenyl (PCB) wastes, the discrepancy must be resolved or waste placed back into the RH-TRU 72-B prior to the end-of-shift.

- Safety glasses, a long-sleeve 100% cotton shirt, and leather gloves must be worn when opening and closing breakers.

- If procedure cannot be performed as written or in sequence, user shall stop work and notify WHE.

- If abnormal conditions are found during operations and/or inspections, user shall stop work and notify WHE.

- Radiological surveys are performed in accordance with WP 12-HP1100.

- WP 08-NT3001 shall be used if WH activities are suspended or interrupted.

- The loading/unloading operation shall be performed only in a dry (no precipitation) environment. In the event of sudden precipitation during outdoor loading operations, precautions, such as covering the cavities, shall be implemented to prevent water from entering the cavities. If precipitation does enter interior cavities, all freestanding water shall be removed prior to loading package for shipment and handling according to the site's waste management procedures.

- RH waste inventory of storage in the Waste Handling Building (WHB) is as follows:

  - A maximum of two loaded RH packages may be stored in RH Bay at any one time. A minimum spacing of 44 inches shall be maintained between loaded RH packages.

  - One loaded shipping RH-TRU 72-B in the Cask Unloading Room (CUR) on a Cask Transfer Car (CTC)

- One canister in the Transfer Cell
- One canister in the facility cask in Facility Cask Loading Room (FCLR)

- Approximate weight of Facility Grapple is 350 lb.
- RH waste shall not be stored in the RH Waste Handling Bay for longer than 60 days.
- Non-waste handling vehicles shall not be allowed in the RH portion of the WHB when RH waste is present in the RH Bay with the RH-TRU 72-B outer lid removed.
- If a manifest discrepancy cannot be resolved and does not allow the unloading of a RH-TRU 72-B, the shipment will be returned to the generator site within 30 days after receipt at the Waste Isolation Pilot Plant (WIPP), or prior to the expiration of the 60-day U.S. Nuclear Regulatory Commission (NRC) vent period, whichever comes sooner.
- If equipment malfunctions do not allow the unloading of a RH-TRU 72-B, the shipment will be returned to the generator site prior to the expiration of the 60-day NRC period.
- Loaded shipping RH packages (wastes) may be transferred into the WHB via the RH Bay shield door only.
- Waste must be transferred to the U/G via the Waste Shaft only.
- Abnormal and/or emergency events that require the cessation of this procedure, such as a radiological event, shall be performed in accordance with WP 05-WH4401, WP 12-HP4000, and WP 12-HP2001, as applicable.
- RH-TRU 72-B that have been used for TRU waste shipments or TRU mixed waste shipments could potentially have a contaminated Inner Containment Vessel (IV).
- Hearing and eye protection must be worn when using impact wrench.
- Loaded and unloaded shipment transportation must be coordinated with contact-handled (CH) WHE.
- If the canister to be loaded into the facility cask exceeds 3,220 lb, hoisting supervisor must be notified for work bonnet removal prior to loading the facility cask containing RH waste onto the waste hoist conveyance.
- Mechanical means may be used to assist in the opening and closing of the facility cask lock pins, if necessary.

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- Equipment weight:

  – Facility Cask 67,389 lb
  – Facility Cask Transfer Car 9,400 lb
  – Waste Hoist Work Bonnet 10,000 lb

- At any point during waste processing, the RH-TRU 72-B lid(s) can be installed and/or removed to maintain equipment configuration as determined by the WHE.

- If the WH process cannot be completed in its entirety, the WHE shall determine where and when to start and stop the process during the shift, and where to stop the process for the end of shift.

- When the Facility Cask Transfer Car (FCTC) is not over the telescoping port shield, or being operated, the Facility Cask Rotating Device (FCRD) gates shall be closed or the open hole covered.

- Door 109 in the RH Bay must not be opened while handling a loaded package inside the RH Bay.

- RH waste shall not be moved to a location outside the designated disposal path.

- Loaded packages in the RH Bay can be stored only on a transport trailer or CTC.

- RH-TRU 72-B canisters shall not be removed from shipping casks outside the Transfer Cell.

- Access to the CUR is limited during RH-TRU 72-B waste processing to only RH WH and radiological personnel.

- The Transportation Engineer (TE) may be notified at any time that container identification numbers match WIPP Waste Information System (WWIS)/Waste Data System (WDS) shipment summary report.

- RH WH personnel will be responsible for determining if a WIPP Form (EA04IM1000-1-0) is required to be generated for documentation purposes or the tracking and closure of an off-normal event.

- If the transfer cell must be entered, perform the applicable steps in WP 05-WH1758.

- The Facility Cask shall not be rotated to the horizontal position until all swipes indicate activity to be less than approved limits.

- Inner lid swipe shall indicate activity less than approved limits prior to inner lid being placed on the Transfer Cell Shuttle Car.

- Operator may use jog lift/lower on FCLR grapple hoist as needed.
- The WHE may authorize operator to lower canister back into the 72-B shipping container at anytime during processing in the Transfer Cell. Authorization will be recorded in the Narrative Log.

PREREQUISITE ACTIONS

1.0 Ensure the applicable section of WP 05-WH1744 for RH surface area inspection has been completed.

2.0 Ensure the following applicable equipment preoperational inspections have been completed:

2.1 Equipment categorized as pre-evolution equipment:

- RH Canister Transfer System per WP 05-WH1705
- 6.25-Ton Fixed Hoist and Facility Grapple per WP 05-WH1721
- Road Cask Transfer Car (RCTC) per WP 05-WH1701
- Cask Prep Station per WP 05-WH1714

2.2 Equipment categorized as pre-shift equipment: [5]

- 140/25-Ton RH Crane 41-T-001 per WP 05-WH1741
- 2.5-Ton Jib Crane 41-T-201 per WP 05-WH1746
- 25-Ton CUR Crane per WP 05-WH1719

3.0 Ensure Door 109 in the RH Bay is closed.

4.0 WH, ensure adequate WH Operations staff is available to support RH WH.

SIGN-OFF WH

5.0 WH, ensure WHB is configured for RH WH Mode.

SIGN-OFF WH

6.0 Verify announcement for RH WH Mode has been made and sign off on Attachment 1.

SIGN-OFF WH

7.0 WHE, obtain WWIS/WDS shipment summary report.

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7.1 Verify, using the WWIS/WDS shipment summary report, the seal date at the generator site does not exceed the 60-day NRC vent period, or the 59-day New Mexico Environment Department (NMED) limit.

7.2 If shipment contains controlled waste, obtain WIPP Control Checklist for Controlled RH Shipments of WP 08-NT3020, from TE.

8.0 WH, record RH-TRU 72-B serial number on Attachment 1.

SIGN-OFF WH

9.0 WH, Record RH-TRU 72-B shipment number on Attachment 1.

SIGN-OFF WH

10.0 Ensure RH-TRU 72-B has been unloaded from trailer per applicable procedure.

PERFORMANCE

NOTE

During the performance of this procedure, if proper indications are not received, the WHE may authorize performing steps or repeating steps of this procedure to ensure proper indications are received. Steps may be reversed or the sequencing of steps may be performed per direction of WHE in order to maintain a safe configuration. This is not intended to circumvent the intent of a "continuous use" procedure and prior to restarting the procedure, it must be re-entered at the same point it was stopped. Radiological Control hold points may not be bypassed. This includes but is not limited to:

- Moving/repositioning the Canister Shuttle Car (CSC).
- Raising/lowering a grapple.
- Opening and closing a grapple not under a load.
- Resetting a robot and repeating robot sequence as necessary.

Any step or steps performed at the discretion of the WHE will be documented in the WH narrative log.

1.0 OUTER CONTAINMENT VESSEL LID REMOVAL

1.1 Place the CTC with RH-TRU 72-B in the prep stand.

1.2 RCT, record survey number on Attachment 1.

SIGN-OFF RCT

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1.3 RCT, position Continuous Air Monitor (CAM) for Outer Containment (OC) lid removal.

1.4 Install a test port tool and quick connect insert on the gas sampling port, turning collar as needed to seat tool in test port.

1.5 Unscrew OC gas sampling port closure bolt using test port tool to equalize pressure.

1.6 Remove test port tool and vent adapter from OC lid gas sampling port.

1.7 Detension 18 lid closure bolts following number sequence in a star pattern on lid one at a time until all bolts have been turned at least one full turn.

1.8 Unscrew all 18 closure bolts on lid and completely remove the bolts from lid.

1.9 Connect OC lid lift fixture, or Ultra-Light lid lift tool, and load cell to OC lid and Jib Crane.

CAUTION

Exceeding a load cell indication of 3,670 lb may damage RH-TRU 72-B OC lid lift socket. Average weight of OC lid is 1,580 lb.

1.10 While monitoring load cell, raise OC lid slowly approximately 6 inches above top of OC body or as directed by RCT.

1.10.1 RCT, perform dose rate survey of IV lid as OC lid is raised.

1.11 **IF** lid does not release,
THEN stop operations and contact WHE.

NOTE

Step 1.12 can be performed concurrently with Steps 1.13 and 1.14.

1.12 RCT, perform contamination swipes of OC lid interior surface and IV lid exterior surface.

1.13 WH, position OC lid on storage stand.

1.14 Remove lid lift fixture from OC lid.

1.15 Secure jib crane, load cell, and Ultra-Light lid lift tool and place in safe configuration.

1.16 RCT, monitor for gross levels of activity.

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1.17 Verify removable surface activity on swipes is below acceptable limits.

SIGN-OFF RCT

2.0 IV LID REMOVAL

2.1 Install test port tool and Radiological Assessment Filter (RAF) assembly on the gas sampling port turning collar as needed to seat tool in test port.

2.2 Connect the vacuum line to the RAF assembly.

CAUTION

If socket wrenches or torque wrenches are used below the lip of the cask on the IV lid, a rubber handle cover is required to protect OC seal surfaces from gouges and dings.

2.3 Unscrew IV lid gas sampling port closure bolt using test port tool.

- Plug control box into applicable power supply.
- Ensure Magnet is unplugged from control box 41-A-160.

2.4 Turn vacuum pump switch to Pump and Magnet.

2.5 Evacuate for approximately 5 minutes to make TRU activity determination on a multichannel analyzer (MCA).

2.6 Turn pump switch **OFF**.

2.7 Ensure vacuum pump control box is unplugged.

2.8 If shipment contains controlled waste, record IV vented date and time on Attachment 5 of WP 08-NT3020.

2.9 WHE, for controlled waste shipments, ensure the 24-hour venting time from waste receipt to IV venting was met and sign and date on Attachment 5 of WP 08-NT3020.

2.10 Disconnect vacuum line from RAF assembly.

2.11 Remove RAF assembly from test port tool.

2.12 RCT, perform the following:

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2.12.1 Perform removable contamination survey of RAF assembly quick connect.

2.12.2 Remove filter from RAF assembly.

2.12.3 Place clean filter in RAF assembly.

2.12.4 Monitor swipe and RAF for gross levels of activity.

2.12.5 Place filter in Alpha-6 monitor with no flow, or into an equivalent MCA instrument.

2.12.6 Let filter count at least 5 minutes on Alpha-6 monitor or the determined amount of time for an equivalent MCA instrument.

2.12.7 RCT, examine spectrum for TRU activity.

2.12.8 RCT, if there is observable TRU activity, **STOP** waste processing and notify the Waste Handling Manager (WHM), Central Monitoring Room Operator (CMRO), and Radiological Control Manager (RCM).

NOTE

Additional RAF samples may be taken as directed by WHM or RCM to determine TRU activity.

NOTE

The verification of RAF and swipe activity limits in Step 4.13 may be performed at anytime after Step 2.13 and before Step 4.14.

2.13 RCT, secure CAM for Cask Prep Stand PASS THRU.

2.14 WH, remove test port tool.

2.15 Connect IV lid lift fixture to IV lid.

2.16 Ensure lift fixture tabs are positioned properly in the NE and SW position.

2.17 Install lid alignment tool on IV lid and OC body.

2.18 Ensure lift tabs are positioned in the NE and SW position and lid alignment tool is installed on the north side.

SIGN-OFF WH

VERIFICATION SIGN-OFF WH

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3.0 CASK TRANSFER TO CANISTER SHUTTLE CAR

3.1 WH, perform the following:

- Ensure Transfer Cell recording system is operating.
- Ensure CUR crane is positioned so as not to interfere with CTC.
- Raise Cask Prep Stand to PASS THRU.

3.2 Position CTC with RH-TRU 72-B in CUR at north automatic stop.

3.3 Perform the following at Control Panel 411-CP04/157 in CUR:

- Ensure Closed-Circuit Television (CCTV) system is **ON** and operable.
- Verify CLOSED lamp is **ON** for shield valve.
- Ensure EMERGENCY STOP button is in **OUT** position.

3.3.2 Place key switch in **MAN** position.

3.3.3 Press START button, if necessary.

3.3.4 Verify POWER ON lamp is **ON**.

3.3.5 Ensure HOIST IN POSITION lamp is **ON**.

3.3.6 Press HOIST FAULT reset button, if necessary.

3.3.7 Using appropriate controls, align 25-ton CUR crane with RH-TRU 72-B trunnions.

3.3.8 Lift RH-TRU 72-B until HOIST IN POSITION lamp is **ON**.

3.3.9 Locate crane with RH-TRU 72-B in the **HOME** position with the Trolley in full north and Bridge full west.

3.3.10 Verify OPEN PERMISSIVE lamp is **ON**.

3.3.11 Open CUR shield valve.

3.3.12 Verify OPEN lamp is **ON** and CLOSED lamp is **OFF**.

3.3.13 Ensure MICRO SPEED switch is in **ON** position.

3.3.14 Press START button.

3.3.15 Ensure both TROLLEY IN POSITION lamps are **ON**.

3.3.16 Ensure both BRIDGE IN POSITION lamps are **ON**.

3.3.17 Using appropriate controls, lower RH-TRU 72-B into CSC.

3.3.18 Using appropriate controls, retract crane yoke to upper limit.

3.3.19 Ensure HOIST IN POSITION lamp is **ON**.

3.3.20 Close CUR shield valve.

3.3.21 Ensure **CLOSED** lamp is **ON** and **OPEN** lamp is **OFF**.

3.3.22 Place key switch in **OFF** position and remove key.

NOTE

The detent robot vision system may need to be reset.

4.0 INNER CONTAINMENT VESSEL LID BOLT DETENSIONING

4.1 Ensure the following at Control Panel 411-CP-264-04 in Cask Loading Room:

- CANISTER TRANSFER SYSTEM MODE SWITCH is in **XFER**.
- CANISTER SHUTTLE CAR switch is in **AUTO**.
- GRAPPLE HOIST switch 41-H-022 is in **AUTO**.
- INTERLOCK switch is in **NORMAL**.
- ROBOTS HOME lamp is **ON**.

NOTE

If the transfer cell must be entered to ensure light curtain status, the applicable steps in WP 05-WH1758 must be performed.

4.2 **IF** the transfer cell was **NOT** entered,
THEN continue to Step 4.4.

NOTE

Steps 4.4 and 4.5 may occur automatically after execution of Step 4.3.

4.3 **IF** the transfer cell was entered in order to ensure light curtain status,
THEN place CANISTER SHUTTLE CAR switch in **AUTO**.

4.4 Push HOT CELL PORT LID DETENSION POS X button.

4.5 Verify HOT CELL PORT LID DETENSION POS X lamp is **ON**.

4.6 Ensure position X camera shows alignment with the cask basket using laser indication (Camera #4 with Diamond Marker #1).

4.7 **IF** laser indication is not in alignment,
THEN perform the following:

4.7.1 Ensure CANISTER TRANSFER SYSTEM MODE switch is in **XFER**.

4.7.2 Place CANISTER SHUTTLE CAR switch in **MAN**.

4.7.3 Press FORWARD or REVERSE button until laser indication is aligned properly.

4.7.4 Place CANISTER SHUTTLE CAR switch in **AUTO**.

4.8 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **NEUT**.

4.9 Ensure Robot DETENSION MODE switch is in **AUTO**.

4.10 Ensure Robot ENABLE DETEN switch is in **ENABLE**.

4.11 Ensure DETEN READY lamp is **ON**.

4.12 RCT, record the following on WP 12-HP1100, Attachment 2, Radiological Survey Report, Section B.

- Time
- Pu239 counts per minute (cpm) or disintegrations per minute (dpm)
- Peak channel or peak energy, as applicable.

4.13 RCT, verify removable surface activity on swipe of RAF assembly and RAF is below acceptable limits.

SIGN-OFF RCT

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NOTE

During automatic sequence, indication lights will be illuminated for step initiated and step completed on each bolt.

4.14 Push INITIATE/CONT button.

4.15 **IF** ROBOT ERROR indication lamp is **ON**,
THEN perform the following:

4.15.1 Press ROBOTS RESET button.

4.15.2 Press ROBOTS HOME button.

4.15.3 Push INITIATE/CONT button.

4.16 If ROBOT ERROR indication lamp is **ON**, contact WHE.

4.17 WHE, if necessary, authorize use of WP 05-WH1758, to detension bolts and return to Step 4.18.

4.18 **WHEN** all eight bolts have been detensioned,
THEN verify DETENSION COMPLETE lamp is **ON**.

4.19 Ensure ROBOTS HOME lamp is **ON**.

5.0 INNER CONTAINMENT VESSEL LID REMOVAL

5.1 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER** position.

5.2 Ensure CANISTER SHUTTLE CAR switch is in **AUTO**.

5.3 Push CLR PORT ROAD CASK POS Y1 button.

5.4 Verify CLR PORT ROAD CASK POS Y1 lamp is **ON**.

5.5 Ensure position Y camera shows alignment with the cask basket using laser indication (Camera #5 with Diamond Marker #1).

5.6 **IF** laser indication is not in alignment,
THEN perform the following:

5.6.1 Ensure CANISTER TRANSFER SYSTEM MODE SWITCH is in **XFER**.

5.6.2 Place CANISTER SHUTTLE CAR switch in **MAN**.

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5.6.3 Press FORWARD or REVERSE button until laser indication is aligned properly.

5.6.4 Place CANISTER SHUTTLE CAR switch in **AUTO**.

5.7 **IF** not already performed, complete preoperational checks on the facility cask and FCRD per WP 05-WH1713, and the FCTC per WP 05-WH1704 and,
THEN RETURN TO Step 5.8.

5.8 Turn FC CLOSURE VALVE TOP switch to **OPEN**.

5.9 Release switch when shield valve starts moving.

NOTE

If necessary, mechanical means may be used to assist the FACILITY CASK SHIELD VALVE LOCKPINS to the OPEN position.

5.10 Ensure the FC CLOSURE VALVE TOP **OPEN** lamp is **ON** and **CLOSED** lamp **OFF**.

NOTE

Position D indication may not be obtained after Step 5.11.

5.11 Push HOIST POS D button.

5.12 Ensure PINTLE GRAPPLE CONTACT indicating lamp is **OFF**.

5.13 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **ASSY**.

5.14 Press SHIELD VALVE 41-N-003 OPEN button.

5.15 Verify SHIELD VALVE 41-N-003 **OPEN** lamp is **ON** and **CLOSED** lamp is **OFF**.

5.16 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER**.

5.17 Turn FC CLOSURE VALVE BOTTOM switch to **OPEN**.

5.18 Release switch when shield valve starts moving.

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NOTE

In order to notify the WH Operator (at Control Panel 411-CP-264-04) to proceed, after the swipe holder in the pneumatic swipe carrier has been sent, the RAD TECH READY button must be pressed.

NOTE

If necessary, mechanical means may be used to assist the FACILITY CASK SHIELD VALVE LOCKPINS to the OPEN position.

5.19 Ensure FC CLOSURE VALVE BOTTOM **OPEN** lamp is **ON** and **CLOSED** lamp is **OFF**.

NOTE

Position G indication may not be obtained after Step 5.20.

5.20 Push HOIST POS G button.

5.21 **IF** PINTLE GRAPPLE lamp is **NOT ON**,
THEN perform the following:

5.21.1 Place GRAPPLE HOIST 41-H-022 switch in **MAN**.

5.21.2 Press JOG LIFT and/or JOG LOWER button to properly set grapple on pintle until PINTLE GRAPPLE CONTACT lamp is **ON**.

5.21.3 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

5.22 Place FACILITY GRAPPLE 41-T-022 switch in **CLOSE** position.

5.23 Verify FACILITY GRAPPLE 41-T-022 **CLOSE** lamp is **ON** and **OPEN** lamp is **OFF**.

5.23.1 RCT, place one swipe holder with appropriately numbered swipe into pneumatic swipe carrier.

5.23.2 RCT, place pneumatic swipe carrier with swipe holder at the bottom of carrier in swipe delivery system send station, located outside the vent hood, and press SEND button.

5.23.3 RCT, ensure pneumatic swipe carrier has been sent and press RAD TECH READY button.

5.24 Ensure the following:

- RAD TECH READY lamp is **ON**.
- CARRIER READY lamp is **ON**.

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- SWIPE SYS READY lamp is **ON**.
- Swipe mode switch is in **NORTH (3)**.

5.25 **IF** CARRIER READY or SWIPE SYS READY indications are not received, **THEN** perform the following:

5.25.1 Press ROBOTS RESET button.

5.25.2 Press ROBOTS TO HOME button.

WARNING

Proper Personal Protective Equipment (PPE), including a long-sleeve 100% cotton shirt, safety glasses, and leather gloves must be worn when operating power supply breaker or disconnect.

5.26 **IF** CARRIER READY OR SWIPE SYS READY indications are still not received,
THEN perform the following:

5.26.1 Place Circuit Breaker (CB) 9 THEN CB 11 on 41P-DP03/15 to the **OFF** position.

5.26.2 Place CB 11 THEN CB 9 on 41P-DP03/15 to the **ON** position.

5.27 WHT, contact CMRO, FSM, or Cognizant Engineer to ensure Transfer Cell differential pressure (DP) is more negative than the FCLR DP.

5.28 Place GRAPPLE HOIST 41-H-022 switch in **MAN**.

5.29 Push JOG LIFT button until lid is free from RH-TRU 72-B.

CAUTION

Failure to verify lid is free may result in damage to lid and/or RH-TRU 72-B.

5.30 Ensure lid is free from RH-TRU 72-B by observing with CCTV.

5.31 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

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NOTE

Any time during the performance of this procedure, if the RCT determines adequate swipes were not taken, WH shall be contacted requesting additional swipes.

5.32 Place Swipe mode switch in **LID (1)**.

5.33 Push INITIATE SWIPE button.

5.34 RCT, verify the robot performed adequate swipe.

5.35 **IF** either ROBOT ERROR or MODE ERROR indication lamp is received, **THEN** contact WHE.

NOTE

The indications in Steps 5.36 through 5.39 will be received automatically as RH-TRU 72-B lid swipe is taken and delivered.

5.36 Verify SWIPE INITIATED lamp is **ON**.

5.37 Verify SWIPE COMPLETE lamp is **ON**.

5.38 Verify SWIPE DELIVERED lamp is **ON**.

5.39 Ensure ROBOTS HOME lamp is **ON**.

NOTE

No additional swipes may be taken in the Transfer Cell if gross levels indicate activity greater than As Low As Reasonably Achievable (ALARA) Job Review requirements for the current RH Waste Processing Radiological Work Permit.

NOTE

RCT will verify in Step 6.12 that swipes taken in Steps 5.40 and 6.11 are below acceptable limits.

5.40 RCT, remove swipe from pneumatic swipe carrier located inside the vent hood.

5.40.1 RCT, monitor swipe for gross level of activity and retain swipe for future analysis.

5.41 RCT, verify CAM monitoring the transfer cell has a normal spectrum (typical peak between 178-188).

SIGN-OFF RCT

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5.42 RCT, place one swipe holder with appropriately numbered swipe into pneumatic swipe carrier.

5.42.1 RCT, place pneumatic swipe carrier with swipe holder at the bottom of carrier in swipe delivery system send station located outside the vent hood and press SEND button.

5.42.2 RCT, ensure pneumatic swipe carrier has been sent and press RAD TECH READY button.

6.0 CANISTER TOP SWIPE

6.1 WH, ensure the following:

- RAD TECH READY lamp is **ON**.
- CARRIER READY lamp is **ON**.
- SWIPE SYS READY lamp is **ON**.

WARNING

PPE, including a long-sleeve 100% cotton shirt, safety glasses, and leather gloves must be worn when operating power supply breaker or disconnect.

6.2 **IF** CARRIER READY OR SWIPE SYS READY indications are still not received,
THEN perform the following:

6.2.1 Place CB 9 THEN CB 11 on 41P-DP03/15 to the **OFF** position.

6.2.2 Place CB 11 THEN CB 9 on 41P-DP03/15 to the **ON** position.

6.3 Place Swipe mode switch in **TOP (2)**.

6.4 Push INITIATE SWIPE button.

6.5 RCT, ensure the robot performed adequate swipe.

6.6 **IF** either ROBOT ERROR or MODE ERROR indication lamp is received, **THEN** contact WHE.

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NOTE

The indications in Steps 6.7 through 6.10 will be received automatically as canister top swipe is taken and delivered.

6.7 Verify SWIPE INITIATED lamp is **ON**.

6.8 Verify SWIPE COMPLETE lamp is **ON**.

6.9 Verify SWIPE DELIVERED lamp is **ON**.

6.10 Ensure ROBOTS HOME lamp is **ON**.

6.11 RCT, remove swipe from pneumatic swipe carrier located inside the vent hood.

6.11.1 RCT, monitor swipe for gross level of activity.

6.12 RCT, verify removable surface activity on swipes taken at Steps 5.40 and 6.11 are below acceptable limits.

SIGN-OFF RCT

6.13 RCT, place one swipe holder with appropriately numbered swipe into pneumatic swipe carrier.

6.13.1 RCT, place pneumatic swipe carrier with swipe holder at the bottom of carrier in swipe delivery system send station located outside the vent hood and press SEND button.

6.13.2 RCT, ensure pneumatic swipe carrier has been sent and press RAD TECH READY button.

7.0 INNER CONTAINMENT VESSEL LID STORAGE

7.1 WH, ensure the following:

- ROBOTS HOME lamp is **ON**.
- GRAPPLE HOIST 41-H-022 switch is in **AUTO**.
- CANISTER SHUTTLE CAR switch is in **AUTO**.
- CANISTER TRANSFER SYSTEM MODE SWITCH is in **XFER**.

7.2 Push HOIST POS F button to raise grapple hoist to position F.

7.3 When hoist reaches position F, verify HOIST POS F lamp turns **ON**.

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7.4 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **ASSY**.

7.5 Press SHIELD VALVE 41-N-003 **CLOSE** button.

7.6 Verify shield valve 41-N-003 **CLOSE** lamp is **ON** and **OPEN** lamp is **OFF**.

7.7 Push CLR PORT LID STORAGE POS Y2.

7.8 Verify CLR PORT LID STORAGE POS Y2 indicating lamp is **ON**.

7.9 Ensure position Y camera shows alignment with lid platform (Camera #5 with Diamond Marker #2).

7.10 **IF** laser indication is not in alignment,
THEN perform the following:

7.10.1 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER**.

7.10.2 Place CANISTER SHUTTLE CAR switch in **MAN**.

7.10.3 Press FORWARD or REVERSE button until laser indication is aligned properly.

7.10.4 Place CANISTER SHUTTLE CAR switch in **AUTO**.

7.10.5 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **ASSY**.

7.11 Press SHIELD VALVE 41-N-003 OPEN button.

7.12 Verify SHIELD VALVE 41-N-003 **OPEN** lamp is **ON** and **CLOSED** lamp is **OFF**.

7.13 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER**.

NOTE

Position G indication may not be obtained after Step 7.14.

7.14 Push HOIST POS G button.

7.15 **IF** PINTLE GRAPPLE lamp is **NOT ON**,
THEN perform the following:

7.15.1 Place GRAPPLE HOIST 41-H-022 switch in MAN.

7.15.2 Press JOG LIFT and/or JOG LOWER button to properly set grapple on pintle until PINTLE GRAPPLE CONTACT lamp is **ON**.

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7.15.3 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

CAUTION

Failure to verify no weight on grapple may cause damage to IV lid.

7.16 Ensure no weight is on the grapple, using grapple weight indicator.

7.17 Place FACILITY GRAPPLE 41-T-022 switch in **OPEN**.

7.18 Verify FACILITY GRAPPLE 41-T-022 **OPEN** lamp is **ON** and **CLOSED** lamp is **OFF**.

7.19 Push HOIST POS F button to raise grapple hoist to position F.

7.20 When hoist reaches position F, verify HOIST POS F lamp is **ON**.

7.21 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **ASSY**.

7.22 Press SHIELD VALVE 41-N-003 **CLOSE** button.

7.23 Verify SHIELD VALVE 41-N-003 **CLOSED** lamp is **ON** and **OPEN** lamp is **OFF**.

8.0 CANISTER SWIPE SEQUENCE

NOTE

Throughout Section 8.0, the interlock key may be switched from normal to over-ride, and back as required.

8.1 Push CLR PORT ROAD CASK POS Y1 button to initiate CSC movement to position Y1.

8.2 Verify CLR PORT ROAD CASK POS Y1 indicating lamp **ON**.

8.3 Ensure position Y camera shows alignment with cask basket (Camera #5 with Diamond Marker #1).

8.4 **IF** laser indication is not in alignment,
THEN perform the following:

8.4.1 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER**.

8.4.2 Place CANISTER SHUTTLE CAR switch in **MAN**.

8.4.3 Press FORWARD or REVERSE button until laser indication is aligned properly.

8.4.4 Place CANISTER SHUTTLE CAR switch in **AUTO**.

8.4.5 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **ASSY**.

8.5 Press SHIELD VALVE 41-N-003 **OPEN** button

8.6 Verify SHIELD VALVE 41-N-003 **OPEN** lamp is **ON** and **CLOSED** lamp is **OFF.**

8.7 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER**.

8.8 Ensure the following:

- RAD TECH READY lamp is **ON**.
- ROBOTS HOME lamp is **ON**.
- CARRIER READY lamp is **ON**.
- SWIPE SYS READY lamp is **ON**.
- GRAPPLE HOIST 41-H-022 switch is in **AUTO**.

NOTE

Position H indication may not be obtained after Step 8.9.

8.9 Push HOIST POS H button.

8.10 **IF** PINTLE GRAPPLE lamp is **NOT ON**,
THEN perform the following:

8.10.1 Place GRAPPLE HOIST 41-H-022 switch in **MAN**.

8.10.2 Press JOG LIFT and/or JOG LOWER button to properly set grapple on pintle until PINTLE GRAPPLE CONTACT lamp is **ON**.

8.10.3 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

8.11 Place FACILITY GRAPPLE 41-T-022 switch in **CLOSE** position.

8.12 Verify FACILITY GRAPPLE 41-T-022 **CLOSE** lamp is **ON** and **OPEN** lamp is **OFF**.

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8.13 WHT, contact CMRO, FSM, or Cognizant Engineer to ensure Transfer Cell DP is more negative than the FCLR DP.

8.14 Place Swipe mode switch in **NORTH (3)**.

8.15 Ensure CANISTER SHUTTLE CAR switch is in **AUTO**.

NOTE

The grapple hoist will automatically lift canister to a preset position before first side swipe is initiated. Canister ID number and PCB's Warning Label may be verified during canister movement.

NOTE

Throughout Section 8.0, the interlock key may be switched from normal to over-ride, and back as required.

8.16 Push INITIATE SWIPE button.

8.17 RCT, verify robot performed adequate swipe.

8.18 **IF** either ROBOT ERROR or MODE ERROR indication lamp is received, **THEN** contact WHE.

NOTE

The indications in Steps 8.19 through 8.22 will be received automatically as swipe is taken and delivered.

8.19 Verify SWIPE INITIATED lamp is **ON**.

8.20 Verify SWIPE COMPLETE lamp is **ON**.

8.21 Verify SWIPE DELIVERED lamp is **ON**.

8.22 Ensure ROBOTS HOME lamp is **ON**.

8.23 RCT, remove swipe from pneumatic swipe carrier located inside the vent hood.

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NOTE

RCT will verify in Step 8.69 that swipe taken in Step 8.24 is below acceptable limits.

NOTE

No additional swipes may be taken in the Transfer Cell if gross levels indicate activity greater than As Low As Reasonably Achievable (ALARA) Job Review requirements for the current RH Waste Processing Radiological Work Permit.

8.24 RCT, monitor swipe for gross level of activity and retain swipe for future analysis.

NOTE

If a manifest discrepancy is discovered during PCB waste processing, the discrepancy must be resolved or waste placed back into the RH-TRU 72-B prior to the end of shift.

8.25 WH, using CCTV cameras 1, 3, 8, 9, 10, or 11, visually verify the following:

- Canister Identification (ID) concurs with WWIS/WDS
- PCB Warning Label, as applicable

8.26 If necessary, perform Steps 8.26.2 through 8.26.4 to place canister in a better position for verification of the following:

- Canister Identification (ID)
- PCB Warning Label, as applicable

8.26.2 Place GRAPPLE HOIST 41-H-022 switch in **MAN**.

8.26.3 Press JOG LIFT and/or JOG LOWER button to locate canister in a better position to read the ID.

8.26.4 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

8.27 Record canister number on Attachment 1.

SIGN-OFF WH or RCT

8.28 WHE, notify TE canister ID number matches WWIS/WDS shipment summary report.

8.29 **IF** the canister ID number does not match WWIS/WDS shipment summary report,
THEN, WHE, notify CMRO, TE, and RH WHM of discrepant load.

8.30 Perform one of the following:

[A] If waste shipment contains PCBs, verify waste container is labeled with a PCB Warning Label and initial Attachment 1.

OR

[B] If waste shipment does **NOT** contain PCBs, on Attachment 1 circle N/A and initial.

SIGN-OFF WH or RCT or N/A

8.31 RCT, place one swipe holder with appropriately numbered swipe into pneumatic swipe carrier.

8.31.1 RCT, place pneumatic swipe carrier with swipe holder at the bottom of carrier in swipe delivery system send station located outside the vent hood and press SEND button.

8.31.2 RCT, ensure pneumatic swipe carrier has been sent and press RAD TECH READY button.

8.32 Ensure the following:

- RAD TECH READY lamp is **ON**.
- ROBOTS HOME lamp is **ON**.
- CARRIER READY lamp is **ON**.
- SWIPE SYS READY lamp is **ON**.

8.33 Place Swipe mode switch in **WEST (4)**.

8.34 Place GRAPPLE HOIST 41-H-022 switch in **MAN**.

8.35 Press GRAPPLE HOIST 41-H-022 JOG LIFT and manually raise RH-TRU 72-B canister approximately halfway out of the RH-TRU 72-B.

8.35.1 Using CCTV system, inspect canister for obvious deformation, excessive rust, holes, and leaks.

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NOTE

Throughout Section 8.0, the interlock key may be switched from normal to over-ride, and back as required.

8.36 Push INITIATE SWIPE button.

8.37 RCT, verify the robot performed adequate swipes.

8.38 **IF** either ROBOT ERROR or MODE ERROR indication lamp is received, **THEN** contact WHE.

NOTE

The indications in Steps 8.39 through 8.42 will be received automatically as swipe is taken and delivered.

8.39 Verify SWIPE INITIATED lamp is **ON**.

8.40 Verify SWIPE COMPLETE lamp is **ON**.

8.41 Verify SWIPE DELIVERED lamp is **ON**.

8.42 Ensure ROBOTS HOME lamp is **ON**.

8.43 RCT, remove swipe from pneumatic swipe carrier located inside the vent hood.

NOTE

RCT will verify in Step 8.69 that swipe taken in Step 8.44 is below acceptable limits.

NOTE

No additional swipes may be taken in the Transfer Cell if gross levels indicate activity greater than As Low As Reasonably Achievable (ALARA) Job Review requirements for the current RH Waste Processing Radiological Work Permit.

8.44 RCT, monitor swipe for gross level of activity and retain swipe for future analysis.

8.45 RCT, place one swipe holder with appropriately numbered swipe into pneumatic swipe carrier.

8.45.1 RCT, place pneumatic swipe carrier with swipe holder at the bottom of carrier in swipe delivery system send station located outside the vent hood and press SEND button.

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8.45.2 RCT, ensure pneumatic swipe carrier has been sent and press RAD TECH READY button.

8.46 WH, ensure the following:

- RAD TECH READY lamp is **ON**.
- ROBOTS HOME lamp is **ON**.
- CARRIER READY lamp is **ON**.
- SWIPE SYS READY lamp is **ON**.

NOTE

Throughout Section 8.0, the interlock key may be switched from normal to over-ride, and back as required.

8.47 Place Swipe mode switch in **EAST (5)**.

8.48 Press GRAPPLE HOIST 41-H-022 JOG LIFT and manually raise RH-TRU 72-B canister approximately two-thirds out of the RH-TRU 72-B.

8.48.1 Using CCTV system, inspect canister for obvious deformation, excessive rust, holes, and leaks.

8.49 Push INITIATE SWIPE button.

8.50 RCT, verify robot performed adequate swipe.

NOTE

The indications in Steps 8.51 through 8.54 will be received automatically as swipe is taken and delivered.

8.51 Verify SWIPE INITIATED lamp is **ON**.

8.52 Verify SWIPE COMPLETE lamp is **ON**.

8.53 Verify SWIPE DELIVERED lamp is **ON**.

8.54 Ensure ROBOTS HOME lamp is **ON**.

8.55 RCT, remove swipe from pneumatic swipe carrier located inside vent hood.

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NOTE

RCT will verify in Step 8.69 that swipe taken in Step 8.56 is below acceptable limits.

NOTE

No additional swipes may be taken in the Transfer Cell if gross levels indicate activity greater than As Low As Reasonably Achievable (ALARA) Job Review requirements for the current RH Waste Processing Radiological Work Permit.

8.56 RCT, monitor swipe for gross level of activity and retain swipe for future analysis.

8.57 RCT, place one swipe holder with appropriately numbered swipe into pneumatic swipe carrier.

8.57.1 RCT, place pneumatic swipe carrier with swipe holder at the bottom of carrier in swipe delivery system send station located outside the vent hood and press SEND button.

8.57.2 RCT, ensure pneumatic swipe carrier has been sent and press RAD TECH READY button.

8.58 WH, ensure the following:

- RAD TECH READY lamp is **ON**.
- ROBOTS HOME lamp is **ON**.
- CARRIER READY lamp is **ON**.
- SWIPE SYS READY lamp is **ON**.

8.59 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

8.60 Place Swipe mode switch in **BOTTOM (6)**.

NOTE

Grapple hoist will automatically lift canister to a preset position before bottom swipe is initiated.

NOTE

Throughout Section 8.0, the interlock key may be switched from normal to over-ride, and back as required.

8.61 Push INITIATE SWIPE button.

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8.62 RCT, verify the robot performs adequate swipe.

8.62.1 As canister is being lifted, use CCTV system to inspect canister for obvious deformation, excessive rust, holes, and leaks.

8.63 **IF** either ROBOT ERROR or MODE ERROR indication lamp is received, **THEN** contact WHE.

NOTE

The indications in Steps 8.64 through 8.67 will be received automatically as swipe is taken and delivered.

8.64 Verify SWIPE INITIATED lamp is **ON**.

8.65 Verify SWIPE COMPLETE lamp is **ON**.

8.66 Verify SWIPE DELIVERED lamp is **ON**.

8.67 Ensure ROBOTS HOME lamp is **ON**.

8.68 RCT, remove swipe from pneumatic swipe carrier located inside the vent hood.

8.69 RCT, monitor swipe for gross level of activity and verify removable surface activity on all swipes taken in the transfer cell process are below acceptable limits.

SIGN-OFF RCT

8.70 RCT, if no additional swipes are needed, then press RAD TECH READY button.

9.0 CANISTER TRANSFER TO FACILITY CASK

NOTE

Throughout Section 9.0, the interlock key may be switched from normal to over-ride, and back as required.

9.1 WH, ensure the following:

- RAD TECH READY lamp is **ON**.
- ROBOTS HOME lamp is **ON**.
- GRAPPLE HOIST 41-H-022 switch is in **AUTO**.

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- CANISTER TRANSFER SYSTEM MODE SWITCH is in **XFER**.
- CANISTER SHUTTLE CAR switch is in **AUTO**.

9.2 Push HOIST POS C button.

9.3 When hoist reaches position C, verify HOIST POS C lamp is **ON**.

9.4 Turn FC CLOSURE VALVE BOTTOM switch to **CLOSE**.

9.5 Release switch after shield valve starts to move.

WARNING

Failure to ensure Facility Cask bottom valve is closed may result in damage to canister and a possible release of radioactive contamination.

9.6 Ensure the FC CLOSURE VALVE BOTTOM is **CLOSED**.

NOTE

If necessary, mechanical means may be used to assist the FACILITY CASK SHIELD VALVE LOCKPINS to the **CLOSED** position.

9.7 Ensure BOTTOM VALVE LOCKPINS STATUS **CLOSED** lamp is **ON**.

9.8 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **ASSY**.

9.9 Press SHIELD VALVE 41-N-003 **CLOSE** button.

9.10 Verify SHIELD VALVE 41-N-003 **CLOSED** lamp is **ON** and **OPEN** lamp is **OFF**.

9.11 Place CANISTER TRANSFER SYSTEM MODE SWITCH in **XFER**.

NOTE

Position D indication may not be obtained after Step 9.12.

9.12 Push HOIST POS D button.

9.13 **IF** PINTLE GRAPPLE lamp is **NOT ON**,
THEN perform the following:

9.13.1 Place GRAPPLE HOIST 41-H-022 switch in **MAN**.

9.13.2 Press JOG LIFT and/or JOG LOWER button to properly set grapple on pintle until PINTLE GRAPPLE CONTACT lamp is **ON**.

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9.13.3 Place GRAPPLE HOIST 41-H-022 switch in **AUTO**.

WARNING

Failure to ensure no weight is on the grapple may cause damage to canister and a possible release of radioactive contamination.

9.14 Place FACILITY GRAPPLE 41-T-022 switch to **OPEN** position.

9.15 Verify FACILITY GRAPPLE 41-T-022 **OPEN** lamp is **ON** and **CLOSED** lamp is **OFF**.

9.16 **IF** INTERLOCK switch is in over-ride,
THEN place in **NORMAL**.

9.17 Push HOIST POS B button.

9.18 When hoist reaches position B, verify HOIST POS B lamp is **ON**.

9.19 Turn FC CLOSURE VALVE TOP switch to **CLOSE**.

9.20 Release switch when shield valve starts moving.

9.21 Ensure FC CLOSURE VALVE TOP is **CLOSED**.

NOTE

If necessary, mechanical means may be used to assist the FACILITY CASK SHIELD VALVE LOCKPINS to the closed position.

9.22 Ensure TOP VALVE LOCKPINS STATUS **CLOSE** lamp is **ON**.

9.23 Push HOIST POS A button.

9.24 Push TEL PORT SHIELD 41-N-013 **DOWN** button.

9.25 When hoist reaches position A, verify HOIST POS A lamp is **ON**.

9.26 Verify TEL PORT SHIELD 41-N-013 **DOWN** lamp is **ON** and **UP** lamp is **OFF**.

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WARNING

PPE, including a long-sleeve 100% cotton shirt, safety glasses, and leather gloves must be worn when operating power supply breaker or disconnect.

9.27 Place breakers 41-ZM-003T CB13, Facility Cask Motor, and 41-ZM-003B CB8, Facility Cask Motor, on 41P-MCC04/1, in the **OFF** position.

9.28 Disconnect electrical and air lines from facility cask.

10.0 FACILITY CASK ROTATION TO HORIZONTAL POSITION

10.1 WH, at control panel 411-CP-264-04, ensure the following:

- Grapple hoist is at upper limit (position A).
- TEL PORT SHIELD 41-N-013 **DOWN** lamp is **ON**.
- INTERLOCK switch is in **NORMAL**.

10.2 Verify the CAR PRESENT indicating lamp is **ON**.

10.3 Pull down FCRD RAISE/LOWER joystick to initiate lowering of facility cask.

10.4 Ensure the following as facility cask is lowered:

- CAR UNLOCKED indicating lamp is **ON**.
- CASK UNLATCHED indicating lamp is **ON**.
- CASK HORIZONTAL indicating lamp is **ON**.

10.5 **WHEN** facility cask rotation is complete,
THEN release FCRD RAISE/LOWER joystick.

10.6 RCT, perform dose rate survey of facility cask.

10.7 Stage FC onto turntable for downloading, if needed.

10.8 **IF** facility cask needs to be rotated for proper configuration in the U/G,
THEN use turntable to rotate.

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11.0 WHE REVIEW

11.1 WHE ensure the following:

- Attachment 1 is reviewed and validated
- WIPP Control Checklist for Controlled RH Shipments of WP 08-NT3020 is complete, if applicable.

11.2 For Controlled Waste shipments, retain a reference only copy of WIPP Control Checklist for Controlled RH Shipments in WP 08-NT3020, and forward the original to the TE, if applicable.

Attachment 1 - RH Waste Processing Data Sheet

STEP	DESCRIPTION	INITIAL
	PREREQUISITE ACTIONS	
4.0	Adequate Waste Handling Operations staff available.	WH_____
5.0	WHB is configured for RH WH Mode.	WH_____
6.0	CMRO announced RH WH Mode.	WH _____
8.0	RH-TRU 72-B Serial Number:_____	WH_____
9.0	Record RH-TRU 72-B shipment number:_____	WH_____
	PERFORMANCE	
1.2	Record survey number:_____	RCT_____
1.17	Removable surface activity on swipe is below acceptable limits.	RCT_____
2.18	Ensure lift tabs are positioned in the NE and SE position and lid alignment tool is installed on the north side. **SIGN-OFF**	WH_____
2.18	Ensure lift tabs are positioned in the NE and SE position and lid alignment tool is installed on the north side. **VERIFICATION SIGN-OFF**	WH_____
4.13	Removable surface activity on swipe of RAF assembly and RAF is below acceptable limits.	RCT_____
5.41	CAM spectrum is in normal range (178-188).	RCT_____
6.12	Removable surface activity on swipes is below acceptable limits.	RCT_____
8.27	Canister Number:_____	WH or RCT____
8.30	Verified waste container **DOES** contain PCBs (Warning Label applied), or container **DOES NOT** contain PCBs (N/A).	WH or RCT N/A_____
8.69	Removable surface activity on swipes is below acceptable limits.	RCT_____

Attachment 1 - RH Waste Processing Data Sheet

Print Name	Signature	Date	Initials
Print Name	Signature	Date	Initials
Print Name	Signature	Date	Initials
Print Name	Signature	Date	Initials
Print Name	Signature	Date	Initials

Remarks:

Review/Validation:

WHE (Print Name) Signature Date