WP 05-WH1744

Revision 12

Surface RH Transuranic Mixed Waste Handling Area Inspections

Technical Procedure

EFFECTIVE DATE: 01/25/11

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APPROVED FOR USE

CONTINUOUS USE PROCEDURE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
12	01/25/11	Revised the References Section of the document. Added the JHA to Precautions and Limitations. Revised the Precautions and Limitations Section, removing the following bullets: Use of flammable compressed gas cylinders when unbolting a lid from the 10-160B cask. Storage limits in the hot cell. Max number of drums in the hot cell. Facility canisters shall not exceed 3 high. Facility canisters shall not exceed 3 high in the hot cell. Deleted Attachment 5 and removed references throughout the procedure.

INTRODUCTION [1,2]

This procedure provides directions for performing inspections of Surface Remote-Handled (RH) Transuranic (TRU) Mixed Waste Handling and Storage areas.

Performance of this procedure generates the following record(s), as applicable:

- Attachment 1 - Surface RH TRU Mixed Waste Handling Area Preoperational Inspection
- Attachment 2 - Daily Door Inspection Check Sheet
- Attachment 3 - Trailer Parking Area and RH Container Storage Area Weekly Inspection
- Attachment 4 - RH Waste Handling Mode RH-TRU 72-B Preoperational Checklist

REFERENCES

BASELINE DOCUMENTS

- Title 10 *Code of Federal Regulations* (CFR) Part 835, "Occupational Radiation Protection"
- 40 CFR §264.15, "General Inspection Requirements"
- 40 CFR 264, Subpart I, "Use and Management of Containers"
- 40 CFR Part 761, Subpart C, "Marking of Polychlorinated Biphenyls (PCBs) and PCB Items"
- 40 CFR Part 761, Subpart D, "Storage and Disposal"
- Hazardous Waste Facility Permit, Identification No. NM4890139088-TDSF

REFERENCED DOCUMENTS

- DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*
- WP 04-AD3001, Facility Mode Compliance
- WP 04-IM1000, Issues Management Processing of WIPP Forms
- WP 05-WH1710, 72-B RH Processing

- WP 05-WH1758, RH Waste Handling Abnormal Operations
- EA04IM1000-1-0, WIPP Form

PRECAUTIONS AND LIMITATIONS

- Only personnel qualified as an RH Waste Handling Technician/Waste Handling Engineer (WHT/WHE) or trainees operating under direct supervision of a qualified RH WHT/WHE, are authorized to perform waste handling (WH) activities specified in this procedure.
- Only personnel who are familiar with the current version of JHA PROD-408, RH Surface Area Inspections, may perform this procedure.
- Notify Waste Handling Manager (WHM) prior to opening any shield ports in the hot cell or transfer cell.
- The concrete floor in the designated storage areas must be free from cracks and gaps to be considered satisfactory.
- Use of flammable gas or flammable compressed gas cylinders is prohibited in the following areas of the RH portion of the Waste Handling Building (WHB) when RH waste is as specified below:
  - Hot Cell Operating Gallery when RH waste is present in the Upper Hot Cell.
  - Crane Maintenance Room with the shield door open unless there is no RH waste in the Upper Hot Cell.
  - Transfer Cell when RH waste is present. Also, not used in the Transfer Cell when RH waste is in the Upper Hot Cell or Cask Unloading Room (CUR) without the Upper Hot Cell and CUR floor shield valves closed.
  - Service Room when RH waste is present in the Transfer Cell.
  - Upper Hot Cell when RH waste is present. Also, not used in the Upper Hot Cell when RH waste is present in the CUR or Transfer Cell unless the Upper Hot Cell floor shield valve is closed and the Upper Hot Cell floor shield plugs are installed.
  - CUR when RH waste is present. Also, not used in the CUR when RH waste is present in the Upper Hot Cell unless the Upper Hot Cell floor shield plugs are installed.
- Storage limit in the RH Bay shall not exceed two loaded RH packages. A minimum spacing of 44 inches shall be maintained between loaded trailers.

- Waste containers shall not be stored in the Hot Cell for longer than 25 days.
- Loaded casks shall only be stored on the transport trailer or the Cask Transfer Car (CTC).
- Storage of flammable gas and flammable compressed gas cylinders is prohibited in WHB.
- Non-flammable compressed gas cylinders shall not be used in the Upper Hot Cell, the CUR, Transfer Cell, or the Facility Cask Loading Room (FCLR) when RH waste is present.
- Waste containers shall not be stored in the RH WHB for longer than 60 days.
- For areas not normally accessible in the RH Hot Cell Complex, the floor shall be visually inspected to verify that it is in good condition and free of obvious cracks and gaps. These manual inspections of the area shall be performed at least annually during routine maintenance periods when waste is not present.
- The floor coating must have at least one layer intact, and no bubbles in the coating, to be considered satisfactory.
- Access to the Crane Maintenance Room is prohibited, unless the shield door is closed when RH waste is in the Upper Hot Cell.
- One canister may be stored in the Facility Cask (FC) in the FCLR.
- One canister may be stored in the Transfer Cell.
- One loaded shipping cask may be stored in the CUR on a CTC.
- Upon entry into the Hot Cell and/or Transfer Cell, to meet 10 CFR Part 835 Survey Requirements, WH personnel will perform the area inspection, as required.
- Parking area unit storage limits may not be exceeded.
  - 8 RH packages in the parking area
  - 4 RH packages in the surge area
- Polychlorinated Biphenyls (PCBs) containers in storage shall be checked/inspected for leaks at least once every 30 days.

PREREQUISITE ACTIONS

1.0 Review previous inspection results for outstanding Action Requests (ARs) and outstanding deficiencies.

2.0 If a required inspection goes delinquent, perform the following:

2.1 Immediately notify the Site Environmental Compliance (SEC) of the delinquent inspection.

2.2 Schedule and complete the inspection.

2.3 Document the following in a letter to SEC within five working days:

- The schedule for inspection
- The reason(s) why the inspection was not performed
- Any measures taken to offset negative impacts resulting from not performing the inspection
- Actions to prevent further delinquencies

2.4 Waste Handling Operations (WHO), **GO TO** WP 04-IM1000 and determine if a WIPP Form (EA04IM1000-1-0) is required.

NOTE

This procedure is in sections. This procedure may be executed on a section-by-section basis, or sections may be performed in parallel, as specified by the crew manager.

PERFORMANCE

1.0 SURFACE RH TRU MIXED WASTE HANDLING AREA PREOPERATIONAL INSPECTION

1.1 **IF** waste is scheduled to be handled in TRU Mixed Waste Handling Area(s),
THEN, at beginning of first shift of each day, inspect applicable areas per Attachment 1.

1.1.1 Enter date and time of inspection in appropriate blocks.

NOTE

Steps 1.1.2 through 1.1.4 may be performed concurrently.

1.1.2 Record results of each individual inspection (✓ / U / N/A) in appropriate block.

1.1.3 Initial applicable block.

1.1.4 **IF** any inspection result is **NOT** satisfactory,
THEN perform following:

- Describe approximate location and nature of deficiency in "Remarks" section.
- Notify WHE.
- Initiate and record ARs for corrective action, as applicable, in "Remarks" section.

1.1.5 Print name, sign, initial, and date when inspection has been completed.

1.1.6 Submit inspection sheet to WHE upon completion of preoperational inspection.

2.0 SURFACE RH TRU MIXED WASTE HANDLING AREA DAILY DOOR INSPECTIONS

2.1 At the beginning of first shift of each regularly scheduled work day **AND** each day waste is scheduled to be handled in TRU Mixed Waste Handling Areas, inspect doors per Attachment 2.

2.2 Enter date and time of inspection in appropriate blocks.

2.2.1 Record results of each individual inspection (✓ / U / N/A) in appropriate block.

2.2.2 Initial applicable block.

2.2.3 **IF** any inspection result is **NOT** satisfactory,
THEN perform following:

- Describe approximate location and nature of deficiency in "Remarks" section.
- Notify WHE.
- Initiate and record ARs for corrective action, as applicable in "Remarks" section.

2.2.4 Print name, sign, initial, and date when inspection has been completed.

2.2.5 Submit inspection sheet to WHE upon completion of preoperational inspection.

3.0 PREOPERATIONAL MODE CHECKLIST

3.1 Performer, after equipment preoperational checks are completed, perform the following with Attachment 4, as applicable:

3.1.1 Ensure date has been entered.

3.1.2 Initial applicable block.

3.1.3 Performer, enter printed name, signature, and initials on Attachment 4, as applicable, when preoperational checks are completed.

3.1.4 WHE, **GO TO** WP 04-AD3001 and complete applicable section of procedure for WH mode in the RH Bay, and return to Step 3.1.5.

3.1.5 WHE, **GO TO** WP 04-AD3001 and complete applicable section of procedure for waste storage or stand-by mode in the RH Bay, and return to step 3.1.6.

3.1.6 After all applicable blocks are completed, initial and note time on Attachment 4, as applicable, designating when WH mode, storage mode or stand-by mode is requested (as applicable).

3.1.7 Upon completion of last preoperational mode checklist for the week, forward Attachment 4, as applicable, to WHE for validation.

4.0 TRAILER PARKING AREA/RH CONTAINER STORAGE AREA WEEKLY INSPECTIONS

NOTE

Weekly inspections are not required if waste is not stored in applicable areas.

4.1 Performer, **IF** waste is stored in Trailer Parking, RH Bay, CUR, Transfer Cell, Hot Cell, or FCLR,
THEN on the last day of work week, inspect applicable areas per Attachment 3.

4.1.1 Enter date and time of inspection in appropriate blocks.

NOTE

Steps 4.1.2 through 4.1.4 may be performed concurrently.

4.1.2 Record results of each individual inspection (✓ / U / N/A) in appropriate block.

4.1.3 Initial applicable block.

4.1.4 **IF** any inspection result is **NOT** satisfactory,
THEN perform following:

- Describe approximate location and nature of deficiency in "Remarks" section.
- Notify WHE.
- Initiate and record ARs for corrective action, as applicable in "Remarks" section.

4.1.5 **IF** asphalt/concrete parking areas where cask is temporarily stored is **NOT** in good condition,
THEN move cask to another location.

4.1.6 Print name, sign, initial, and date when inspection completed.

4.1.7 Submit inspection sheet to WHE upon completion of weekly inspection.

5.0 REVIEW

5.1 WHE, perform the following:

5.1.1 Review Attachments 1, 2, and 3 for unsatisfactory conditions, corrective actions taken, and outstanding or newly generated ARs.

5.1.2 Enter initials in block provided for specific day.

5.1.3 Upon completion of last inspection to be documented on inspection sheet, validate inspection(s) by printing name, signing, and dating inspection sheets in spaces provided.

5.1.4 Upon completion of all checklist items on Attachments 4 validate by printing name, signing, and dating.

5.1.5 Forward Attachments 1 through 4 to Records Coordinator, as applicable.

Attachment 1 - Surface RH TRU Mixed Waste Handling Area Preoperational Inspection

AREA/EQUIPMENT PREOPERATIONAL INSPECTIONS								
✓ = Satisfactory U = Unsatisfactory N/A = Not Inspected	DATE							
	TIME							
RH Bay	✓/U							
Cask Unloading Room	✓/U							
*Transfer Cell	✓/U							
*Hot Cell	✓/U							
Facility Cask Loading Room	✓/U							
Prep Station	✓/U							
RH - Site-Derived Waste Storage Area	✓/U							
**Crane Maintenance Room	✓/U							
Performer Initials	*******							
WHE Initials	******							

*Transfer Cell and Hot Cell inspections will be performed using cameras.

**Crane Maintenance Room will be inspected prior to locking Airlock Door 402. This area is locked and will not be inspected therefore this area will be marked not applicable (N/A). Subsequently area inspections will not be required unless entry into the Crane Maintenance Room has been approved. Hot cell and transfer cell penetrations will be maintained in compliance with DOE/WIPP-06-3178, Subsection 5.6.4.j, through the work control process.

Prep Station Checks:

- Structural fatigue, deformation, wear (obvious cracks, bends or breaks), rust, loose or deformed decking
- Missing hardware such as nuts and bolts
- Area free of debris and refuse

Storage Area Checks:

- Concrete floor in good condition free of cracks and gaps
- Epoxy floor coating in good condition - at least one layer intact, and no bubbles in coating
- No evidence of spills or leaks from waste containers
- Containers in good condition/no visible deterioration
- Area free of debris and refuse
- Warning signs posted in area
- Telephone/internal communications - proper working order
- Unobstructed access with 44-inch minimum aisle clearance between loaded casks
- Cameras in proper working order
- Facility Cask Loading Room Door 144 posted
- No flammable gas or flammable compressed gas cylinders stored in the RH portion of the WHB
- No transient combustible materials stored
- No more than four non-flammable compressed gas cylinders stored in RH Bay when there is waste in the CH Bay north east corner
- No more than two nonflammable compressed gas cylinders in the Hot Cell Operating Gallery
- No non-flammable compressed gas cylinders stored in the Hot Cell Complex, Crane Maintenance Room, and FCLR
- All Ladders to Hot Cell Catwalk posted
- Site-Derived waste containers elevated > 6 inches above floor
- Polychlorinated Biphenyls (PCB) warning signs posted on all entrances into RH Bay and Radiological areas

Attachment 1 - Surface RH TRU Mixed Waste Handling Area Preoperational Inspection

Performer Name (Print) Signature Initials Date

REMARKS:

VALIDATION: / / /

WHE (Print Name) Signature Initials Date

Attachment 2 - Daily Door Inspection Check Sheet

Daily Door Check Sheet										
✓ = Satisfactory U = Unsatisfactory N/A = Not Inspected		Date								
		Time								
Door 70	Transfer Cell Door locked	✓/U								
154	Lower Hot Cell Door closed, cage locked	✓/U								
158 159	RH Bay West Wall Doors closed	✓/U								
**149	CUR control panel door closed, alarm activated	N/A / ✓/U								
*217	Hot Cell Door closed	✓/U								
216	Hot Cell Shield Door closed, cage locked	✓/U								
402	Crane Maint. Room airlock Door locked Crane Maint. Room Door closed	✓/U								
Performer Initials		******								
WHE Initials		******								

*Door check will be completed using cameras.
**Only required if a loaded CNS 10-160B is stored in CUR.

Attachment 2 - Daily Door Inspection Check Sheet

Performer Name (Print) Signature Initials Date

REMARKS:

VALIDATION: / / /

WHE (Print Name) Signature Initials Date

Attachment 3 - Trailer Parking Area and RH Container Storage Area Weekly Inspection

TRAILER PARKING/CONTAINER STORAGE AREA/EQUIPMENT WEEKLY INSPECTIONS						
✓ = Satisfactory U = Unsatisfactory N/A = Not Inspected	DATE					
	TIME					
Trailer Parking Area	√/U					
RH Bay	√/U					
Cask Unloading Room	√/U					
*Transfer Cell	√/U					
*Hot Cell	√/U					
Facility Cask Loading Room	√/U					
Performer Initials	**********					
WHE Initials	**********					

*Transfer Cell and Hot Cell inspections will be performed using cameras.

Trailer Parking Area Checks:

- Verify by WWIS the seal date at generator site does not exceed 60-day NRC vent period, or 59-day NMED limit
- Warning signs posted in area
- Asphalt/concrete parking areas free from cracks/gaps that could create hazard to forklift operation
- Unobstructed access with Minimum 4-ft aisle space between loaded trailer(s)
- Road cask(s) in good condition/no visible deterioration
- No evidence of spills or leaks from or road casks
- Surge Storage Area: 4 - RH Packages Maximum
- Parking Areas Storage: 8 - RH Packages

Storage Area Checks:

- Epoxy floor coating in good condition - free of cracks and gaps
- No evidence of spills or leaks from waste containers
- Containers in good condition/no visible deterioration
- Area free of debris and refuse
- Warning signs posted in area
- Telephone/internal communications
- Unobstructed access with 44-inch minimum aisle clearance between loaded casks
- Cameras in proper working order
- Facility Cask Loading Room Door 144 posted
- No flammable gas or flammable compressed gas cylinders stored in the RH portion of the WHB
- No transient combustible materials stored
- No more than four nonflammable compressed gas cylinders stored in RH Bay when there is waste in the CH Bay north east corner
- No more than two nonflammable compressed gas cylinders in the Hot Cell Operating Gallery
- No non-flammable compressed gas cylinders stored in the Hot Cell Complex, Crane Maintenance Room, and FCLR
- All ladders to Hot Cell Catwalk posted
- Verify first date on WP 05-WH1710, Attachment 1, does not exceed 60 calendar days.
- Verify first date on WP 05-WH1722, Attachment 2, does not exceed 25 calendar days.

Attachment 3 - Trailer Parking Area and RH Container Storage Area Weekly Inspection

Performer Name (Print) Signature Initials Date

REMARKS:

VALIDATION: / / /

WHE (Print Name) Signature Initials Date

Attachment 4 - RH Waste Handling Mode RH-TRU 72-B Preoperational Checklist

PREOPERATIONAL SURFACE WASTE HANDLING MODE CHECKLIST					
Date:					
Cask Number:					
PRE-EVOLUTION					
Cask Prep Station					
Cask Transfer Car					
6.25-Ton Fixed Hoist and Grapple					
Canister Transfer System					
*Facility Cask/Facility Cask Rotating Device					
*FCTC					
PRE-SHIFT					
140/25-Ton Crane					
25-Ton CUR Crane					
2.5-Ton Jib Crane					
CCTV					
**Manlifts					
Surface Area Inspection Initials/Time					
Request for WH mode to CMR: Initials/Time					
Request for standby/storage mode to CMR: Initials/Time					

*Needed for downloading **Not required for mode

Attachment 4 - RH Waste Handling Mode RH-TRU 72-B Preoperational Checklist

Performer Name (Print) Signature Initials Date

REMARKS:

VALIDATION: / / /
WHE (Print Name) Signature Initials Date