

WP 05-WH1011

Revision 31

CH Waste Processing

Technical Procedure

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APPROVED FOR USE

CONTINUOUS USE PROCEDURE

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INTRODUCTION ^{1, 2, 3, 4, 5}

This procedure provides instructions for unloading contact-handled (CH) packages which consist of the transuranic (TRU) package transporter (TRUPACT-II or HalfPACT) shipping container.

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

- Attachment 1 - CH Waste Processing Data Sheet
- Attachment 2 - Stacking of Multiple Payloads
- Narrative Log

REFERENCES

BASELINE DOCUMENTS

- Title 30 *Code of Federal Regulations* (CFR) §57.5015, "Oxygen Deficiency"
- 40 CFR Part 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions"
- NRC-Docket-71-9218, *Certificate of Compliance for the TRUPACT-II Package*
- NRC-Docket-71-9218, *TRUPACT-II Safety Analysis Report for the TRUPACT-II Shipping Package*
- NRC-Docket 71-9279, *Certificate of Compliance for the HalfPACT*
- NRC-Docket 71-9279, *Safety Analysis Report for the HalfPACT Shipping Package*
- Contact Handled Transuranic Waste Authorized Methods for Payload Control (CH TRAMPAC)
- Hazardous Waste Facility Permit (HWFP), Waste Isolation Pilot Plant, Permit No. NM4890139088-TSDF, issued by the New Mexico Environment Department
- DOE/WIPP 02-3183, *CH Packaging Program Guidance*
- DOE/WIPP-95-2065, *Waste Isolation Pilot Plant Contact Handled (CH) Waste Documented Safety Analysis*
- DOE/WIPP-95-2125, *Waste Isolation Pilot Plant Contact Handled (CH) Technical Safety Requirements*

- *Multi-Gas Monitor Instruction Manual*
- *Sampling Pump Instruction Manual*

REFERENCED DOCUMENTS

- DOE/WIPP 02-3184, *CH Packaging Operations Manual*
- DOE/WIPP 02-3220, *CH Packaging Operations for High-Wattage Waste*
- WP 05-WH.01, WIPP Waste Handling Operations WWIS User's Manual
- WP 05-WH1101, Surface Transuranic Mixed Waste Handling Area Inspections
- WP 05-WH4401, Waste Handling Operator Event Response
- WP 08-NT3020, TRU Waste Receipt
- WP 12-HP1100, Radiological Surveys
- WP 12-HP1500, Radiological Posting and Access Control
- WP 12-HP4000, Emergency Radiological Control Responses

EQUIPMENT

- Dry cloths
- Brushes
- Ladder
- Payload tie-down assembly
- O2 Monitor
- Sampling pump
- Scraper
- ICV/OCA Lid Pressurization Assembly

PRECAUTIONS AND LIMITATIONS

NOTE

Unless otherwise noted, steps are performed by waste handling (WH).

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

- If waste handling activities are suspended or interrupted, the Transportation Engineer (TE) shall be contacted, as determined by the WHE.
- Abnormal events that require cessation of this procedure, such as a radiological event, must be performed in accordance with WP 05-WH4401 and WP 12-HP4000.
- If procedure cannot be performed as written, WHE shall be contacted.
- Step 2.5.32 may be performed at any time during the performance of this procedure.
- Moving/stacking of the payloads in the CH Bay may be performed at any time during the performance of this procedure and at the direction of the Crew Manager.
- Failure to rotate the counterweights on the Adjustable Center of Gravity Lift Fixture (ACGLF) to the balanced position may cause ACGLF to swing uncontrollably, resulting in equipment damage or personnel injury.
- Outer containment assembly (OCA) lid, Lift Pocket Covers may be removed at any time.
- ACGLF may be placed on lids at any time during the process.
- Inner Containment Vessel (ICV) or Outer Containment Vessel (OCV) lock rings shall not be rotated with mechanical force.
- Attachment 3 can be used as a reference for projected volumes in the CH Waste Storage Area.
- **The following restrictions must be observed in the CH Bay:**

NOTE

All pallets of waste must be stored in an approved storage area prior to exiting waste handling mode. Under normal Waste Handling Operations (WHO) each pallet (including half pallets) containing CH waste are counted toward the maximum of 13 pallets in the CH bay.

- No more than seven facility pallets loaded with CH waste stored in the northeast corner.
- No more than seven facility pallets loaded with CH waste stored in the southwest corner.
- Only one facility pallet loaded with CH waste may be in the shielded storage room.

- Total projected volume in the CH Bay Storage Area is not to exceed 135.9 m³; the equivalent of thirteen (13) fully loaded pallets (including half pallets) and four (4) CH Packages at the TRUDOCKs, with or without lids removed and payloads remaining in the TRUPACT or HalfPACT.
- TRUPACT-IIs or HalfPACTs loaded with CH waste may be stored at each TRUDOCK location.
- Waste is not to be placed in the CH Bay Surge storage area of the Waste Handling Building (WHB) without authorization of the Waste Operations Manager. If a condition exists that will cause an overflow of waste in the CH Bay storage area, waste handling shall be stopped and WHE, Central Monitoring Room Operator (CMRO), and Waste Handling Manager (WHM) contacted.
- No more than five facility pallets loaded with CH waste (stored near Airlock 107), when surge storage is in use, per Attachment 3.
- TRUPACT-II must be ventilated to >20 percent oxygen level before entry into ICV body if backfilled with inert gas.
- For high-wattage waste, or Controlled Waste, 24 hours is the maximum time between the date/time that shipment is received at Waste Isolation Pilot Plant (WIPP) and the date/time that ICV is vented.
- TE may be notified at any time that container identification (ID) numbers match WIPP Waste Information System (WWIS) Shipment Summary Report.
- At any point during waste processing, the TRUPACT-II lids can be positioned back onto the TRUPACT body to maintain appropriate equipment configuration, as determined by the WHE.
- If discrepancies with CH Packaging are found while processing, the WHE shall be notified. If a condition exists that cannot be resolved, the WHE shall then notify the Packaging Maintenance Engineer (PME) of the discrepancy.
- If a shipment is to be returned to generator site, DOE/WIPP 02-3184, Subsection 2.16, Loading Payload Assembly, must be performed.
- Waste containers shall not be stored in the WHB for longer than 60 days.
- OCV-ICV lids shall be removed using a straight (vertical) pull; side pulls are not permitted.

- In the event waste handling activities will be performed on the back-shift (or off-shift), the WHM or WHE must contact the Facility Shift Manager to assess the need for additional fire fighting capabilities. Concurrent activities during waste handling, such as equipment maintenance, waste receipt, construction activities, abnormal hoisting activities, and equipment used during these activities, including surface mining equipment, may indicate the need to evaluate the possibility for additional firefighting capabilities. This will be assessed on a case-by-case basis and determined prior to the commencement of waste handling activities.
- Jack stands are required on freestanding trailers only when loading/unloading packaging on the trailer.
- Prerequisite Action 3.0 can be performed at any time during the performance of this procedure.
- If shipment **DOES NOT** contain high-wattage waste or Controlled Waste, WHE must use the WWIS Shipment Summary Report and schedule CH package unloading based on the ICV closure date to ensure that the 60-day U.S. Nuclear Regulatory Commission venting requirement and/or 59-day New Mexico Environment Department inspection requirement are not exceeded.
- In the event CH waste handling activities will be performed on the back-shift (or off-shift), WHE must ensure that applicable equipment preoperational inspections and area inspections have been completed and CH Technical Safety Requirement (TSR) staffing met in order to continue CH waste handling operations.
- **A spotter and a Radiological Control Technician (RCT) are required when moving WASTE.**
- **Barricades shall be installed along the southwest wall of the WHB between Airlock 100 and the TRUPACT Maintenance Facility (TMF) such that they are nominally 10 ft from the external wall of the WHB.**

PREREQUISITE ACTIONS

NOTE

The package unloading operation shall only be performed in a dry environment. In the event of precipitation during outdoor unloading or loading operations, OCV and ICV cavities shall be covered to prevent precipitation from entering the interior cavities. If precipitation does enter interior cavities, all freestanding water shall be removed before shipment, and liquid handled according to the site's waste management procedures.

NOTE

Transport trailer operations, package loading and unloading from transport trailers, hoisting and rigging activities such as ACGLF operations, equipment checkout and shutdown, and component inspection activities must be performed, but may be performed in any order and in parallel with other activities as long as radiological control steps are not bypassed. Steps involving OCA/ICV lid removal/installation and payload removal/loading may be performed in parallel if there are multiple operators working on the same packaging.

NOTE

All sign-offs are on Attachment 1 of this procedure, unless otherwise noted.

- | 1.0 WHE, record shipment number and OCA body serial number on Attachment 1.

SIGN-OFF

- | 2.0 WHE, ensure TE has validated shipping documents, inspected CH packages for damage, and released CH packages for unloading.

SIGN-OFF

- | 3.0 WHE, ensure on Attachment 1, that the shipment has been received in WWIS.

SIGN-OFF

- | 4.0 WHE, obtain WWIS Shipment Summary Report.

- | 5.0 If shipment contains high-wattage waste, ensure that Attachment 4 (High-Wattage Loaded Package Receipt and Processing Data Sheet) and Attachment 10 (Time and Date Data Sheet for Receipt of High-Wattage Waste), of DOE/WIPP 02-3220 are available from the generator site.

- | 6.0 If shipment contains Controlled Waste, obtain Attachment 3 (WIPP Control Checklist for Controlled Shipments) of WP 08-NT3020, from the TE.

- | 7.0 Ensure applicable section of WP 05-WH1101, has been completed.
- | 8.0 Ensure applicable equipment preoperational inspections have been completed.
- 9.0 If the ICV body was backfilled with inert gas for the current shipment, perform the following:
 - | [A] WHE, record oxygen monitor serial number and verify calibration due date has not expired.

SIGN-OFF or N/A

- | [B] WHE, ensure oxygen monitor daily calibration and sample pump operational check is complete.

SIGN-OFF or N/A

- 10.0 Configure TRUDOCK position to facilitate operations for specific type of CH package, if required.

PERFORMANCE

1.0 TRAILER HANDLING AND UNLOADING

CAUTION
A physical check shall be made to ensure air bags on the trailer have fully inflated before trailer is moved. Failure to do so may cause tires to rub on the bottom of the rear CH package. The trailer must be kept as level as possible during movement.

NOTE

If a trailer is posted as a Radiological Area, notify the RCT before moving TRUPACT and/or trailer.

- 1.1 Position transport trailer in a designated area.
- 1.2 Lower trailer jacks (landing gear), ensuring trailer is level.
- 1.3 Install wheel chocks.
- 1.4 Install trailer stands on freestanding trailers.

1.5 Prepare CH package for removal as follows:

- Release tie-downs from packaging.
- Rotate four forklift pocket covers to UP position, or remove four covers and store in a designated area.

NOTE

Only dry CH packages are allowed in the CH Bay.

1.6 If required, dry CH package before transferring into WHB, using the following methods:

- Brush or scrape
- Wipe with cloths

CAUTION

Forklift tip-back beyond level may damage CH package exterior surface.

1.7 Transfer CH package to TRUDOCK.

WARNING

Operator shall remain on station until TRUDOCK Bay doors are fully closed.

CAUTION

TRUDOCK Bay doors must not contact CH package when lowering TRUDOCK Bay doors.

1.8 Ensure TRUDOCK Bay Doors will clear CH package.

1.9 Lower TRUDOCK Bay doors and close/latch TRUDOCK gates.

2.0 CH PACKAGE UNLOADING

2.1 WH, ensure adequate WHO staff is available to support CH waste processing.

SIGN-OFF

2.2 WH, ensure WHB is configured for waste handling mode.

SIGN-OFF

2.3 OCA Lid Removal

2.3.1 Remove and dispose of the security seals.

2.3.2 If seal is broken or missing, contact WHE.

2.3.3 Remove the following components to prepare OCA lid for removal:

- OCA lift pocket covers, if not previously removed
- OCV test-port access plug and thermal plug
- OCV vent port access plug and thermal plug
- OCA lock bolts (6)

NOTE

If OCA lid is turned so that the OCV seal test port plug is not accessible, Step 2.3.4 cannot be performed, and Operator must proceed to Step 2.3.5.

2.3.4 Ensure OCV seal test-port plug is fully seated.

2.3.5 Remove OCV vent port cover.

NOTE

Torque on OCV vent port plug may be relieved prior to installation of OCV vent port tool.

2.3.6 Install OCV vent port tool.

2.3.7 Retrieve OCV vent port plug into vent port tool.

2.3.8 Connect vacuum line to vent port tool.

2.3.9 Start vacuum pump and evacuate 3-in to 15-in Hg (mercury) vacuum gauge.

2.3.10 Rotate OCV lock ring to UNLOCKED position.

2.3.11 Stop vacuum pump.

2.3.12 Disconnect vacuum line to vent port tool.

2.3.13 Remove vent port tool and OCV vent port plug.

CAUTION

To prevent weight from shifting, Operator shall ensure that the two ACGLF counterweights are at 180 degrees and 000 degrees (+/- 2 degrees) **BEFORE** lifting ACGLF or lid.

2.3.14 If not previously completed, attach ACGLF to OCA lid.

CAUTION

To avoid shearing of lid lift pins, load cell reading **MUST NOT** exceed 7,500 lb when weight of ACGLF is zeroed out, or 10,000 lb when weight of ACGLF is included.

2.3.15 Perform the following:

- **SLOWLY** raise OCA lid approximately six inches above the top of the ICV lid, or as directed by RCT.
- RCT, perform dose rate survey as OCA lid is being raised.

2.3.16 **IF** the OCA lid does not lift off, **THEN** perform the following:

- [A] Contact WHE.
- [B] **GO TO** Section 3.0, attempt to remove the lid, **AND** return to Step 2.3.17.

NOTE

At the discretion of the RCT, Step 2.3.17 may be performed after Step 2.3.18.

2.3.17 RCT, perform contamination swipes of OCA lid interior surface and ICV lid exterior surface.

2.3.18 Place OCA lid on storage stand.

2.3.19 RCT, monitor swipes for gross levels of activity.

2.4 ICV Lid Removal

CAUTION

To prevent weight from shifting, Operator shall ensure that the two ACGLF counterweights are located at 180 degrees and 000 degrees (+/- 2 degrees) **BEFORE** lifting the ACGLF or lid.

2.4.1 If not previously completed, attach ACGLF to ICV lid.

2.4.2 Remove ICV vent port cover.

2.4.3 Remove the following:

- ICV outer vent port plug
- ICV lock bolts (3)
- ICV seal test-port plug
- OCV seal test-port plug

WARNING

ICV inner vent port plug **MUST NOT** be removed if torque is relieved prior to installing ICV vent port tool. Plug removal may result in contamination of personnel and area.

NOTE

Torque on ICV inner vent port plug may be relieved prior to installation of ICV vent port tool.

2.4.4 Install ICV vent port tool.

2.4.5 RCT, install Radiological Assessment Filter (RAF) with TRUPACT number and date into the RAF assembly.

2.4.6 Install the RAF assembly onto ICV vent port tool.

2.4.7 Connect vacuum hose to RAF assembly.

2.4.8 Retrieve ICV inner vent port plug into ICV vent port tool.

CAUTION

Vacuum should not exceed 15-in Hg when attempting to open ICV lid.

- 2.4.9 Start vacuum pump and evacuate 3-in to 15-in Hg vacuum gauge.
- 2.4.10 If shipment contains high-wattage waste, record ICV vented date and time on Attachment 4 of DOE/WIPP 02-3220.
- 2.4.11 WHE, for high-wattage waste shipments, verify the 24-hour venting time from waste receipt to ICV venting time was met **AND** sign and date Attachment 10 of DOE/WIPP 02-3220.
- 2.4.12 If shipment contains Controlled Waste, record ICV vented date and time on Attachment 4, of WP 08-NT3020.
- 2.4.13 WHE, for Controlled Waste shipments, ensure the 24-hour venting time from waste receipt to ICV venting was met **AND** sign and date on Attachment 4, of WP 08-NT3020.
- 2.4.14 Rotate ICV lock ring to UNLOCKED position.
- 2.4.15 Stop vacuum pump.
- 2.4.16 Disconnect vacuum line from RAF assembly.
- 2.4.17 Remove RAF assembly from ICV vent port tool.

NOTE

At the discretion of the RCT, Step 2.4.28 may be performed immediately after Step 2.4.18.

- 2.4.18 RCT, perform contamination swipe of RAF assembly quick connect.
- 2.4.19 RCT, monitor swipe and RAF for gross levels of activity.
- 2.4.20 RCT, place filter in a Multi Channel Analyzer (MCA) with no flow, or into an equivalent instrument.
- 2.4.21 RCT, let filter count for at least five minutes.
- 2.4.22 RCT, examine spectrum for transuranic (TRU) activity.

- 2.4.23 RCT, if there is observable TRU activity, notify WHE/WHM, Radiological Control Engineer/Radiological Control Superintendent (RCE/RCS), CMRO, and **STOP** waste processing on affected TRUDOCK positions.

NOTE

Additional RAF samples may be taken as directed by WHM, with RCT and RCE support to determine TRU activity.

- 2.4.24 RCT, record the following on Attachment 2, Radiological Survey Report, Section B, of WP 12-HP1100:

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

NOTE

In Step 2.4.25 below, the swipes were taken at Step 2.3.17 on OCA lid interior surface and ICV lid exterior surface, and at Step 2.4.18 on RAF quick connect.

- 2.4.25 RCT, ensure activity on swipes and RAF is below acceptable limits.

SIGN-OFF

- 2.4.26 RCT, ensure continuous air monitor (CAM) is operating properly.
- 2.4.27 Remove ICV vent port tool and ICV inner vent port plug.
- 2.4.28 If not previously completed, install CAM head and vent hood system.
- 2.4.29 Ensure air flows into vent hood.

CAUTION

To avoid shearing of lid lift pins, load cell reading **MUST NOT** exceed 5,000 lb when weight of ACGLF is zeroed out, or 7,500 lb when weight of ACGLF is included.

2.4.30 Perform the following:

- **SLOWLY** raise ICV lid to clear ICV body, and hold it approximately two feet above the top of ICV body flange, or as directed by RCT.
- RCT, perform dose rate survey as ICV lid is being raised.

2.4.31 **IF** ICV lid does not lift off,
THEN perform the following:

- [A] Contact WHE.
- [B] **GO TO** Section 3.0, attempt to remove the lid, and return to Step 2.4.32.

2.4.32 RCT, perform contamination swipes of ICV lid interior and top of payload.

2.4.33 RCT, monitor swipes for gross levels of activity.

2.4.34 RCT, verify activity on swipes is below acceptable limits.

SIGN-OFF

2.4.35 RCT, **IF** shipment contains high-wattage waste **AND** activity has been verified below acceptable limits,
THEN initial applicable steps on Attachment 4 of DOE/WIPP 02-3220.

NOTE

Step 2.4.36 may be performed concurrently with Step 2.4.37.

2.4.36 Remove vent hood system and CAM head.

2.4.37 WHE, **IF** ICV body was backfilled with inert gas for the current shipment,
THEN perform a TRUPACT-II walk-around measurement verifying that the oxygen concentration is >20 percent in the worker breathing zone.

SIGN-OFF or N/A

2.4.38 Place ICV lid on storage stand.

2.5 Unloading Payload Assembly

2.5.1 RCT, perform swipes of the guide tubes, Standard Waste Box (SWB), or ten-drum overpack (TDOP) connecting devices, and SWB ratchet straps.

2.5.2 RCT, monitor swipes for gross levels of activity.

CAUTION

To prevent weight from shifting, Operator shall ensure that the two ACGLF counterweights are located at 180 degrees and 000 degrees (+/- 2 degrees) **BEFORE** lifting the ACGLF or payload, when the payload does not have predetermined counterweight settings.

2.5.3 Attach ACGLF with appropriate legs/adaptor to payload.

NOTE

If no predetermined settings are on payload, settings default to 180 degrees/000 degrees (+/- 2 degrees).

2.5.4 Position ACGLF counterweights to predetermined positions as marked on top of payload.

2.5.5 RCT, verify activity on swipes of guide tubes, SWB or TDOP connection devices, and SWB ratchet straps is below acceptable limits.

SIGN-OFF

NOTE

Steps 2.5.6 through 2.5.11 are performed concurrently while removing the payload.

NOTE

ACGLF tilt sensor indicators should be monitored and the counterweights adjusted to +/- 0.5 degrees, as needed.

- 2.5.6 Raise payload assembly slowly.
- 2.5.7 RCT, perform dose rate survey of the payload.
- 2.5.8 WH, visually inspect payload verifying containers are not damaged.

SIGN-OFF

NOTE

At the discretion of the RCT, Step 2.5.9 may be performed after Step 2.5.18.

NOTE

WIPP WWIS and container ID number verification can be performed during contamination surveys.

- 2.5.9 RCT, perform contamination swipes on areas of payload assembly not previously accessible, such as lower SWB seals, and upper and lower layer of 14-pack drums.
- 2.5.10 **IF** payload is damaged,
THEN notify WHE.
 - WHE, if damage is found, document decision for disposition of containers in the logbook and proceed as directed by the WHM.

NOTE

If a payload has a dunnage assembly, containers are only required to have a dunnage or empty label affixed. Specific dunnage container ID numbers found on the WWIS Shipment Summary Report are not required to be verified. Dunnage assemblies may be confirmed by the absence of radionuclides and hazardous materials information on the Shipment Summary Report.

NOTE

If there is a discrepancy between the WWIS Shipment Summary Report and the container ID numbers, the payload (in CH packaging, or on a facility pallet) should be placed in a Shielded Storage Room.

If placing a payload with CH packaging into the Shielded Storage Room, Steps 2.5.11 through 2.5.20 CANNOT be performed.

- | 2.5.11 Using bar code reader, scan a waste container in each of the
| payload assemblies, per WP 05-WH.01, Surface Operation.

OR

IF WWIS bar code reader is **NOT** operational,
THEN visually verify all accessible payload alpha/numeric
container ID against WWIS Shipment Summary Report.

- | 2.5.12 WH, record appropriate result: payload container alpha/numeric
| ID matches or does not match the WWIS. Initial Attachment 1
AND notify WHE or designee of the results.

SIGN-OFF

- | 2.5.13 WHE, **IF** WWIS bar code reader is NOT operational,
| **THEN** manually enter WWIS concurrence into WWIS database.

- 2.5.14 Notify TE that container alpha/numeric ID matches WWIS
Shipment Summary Report.

- 2.5.15 **IF** the container ID alpha/numeric numbers **DO NOT** match WWIS
Shipment Summary Report,
THEN, WHE, notify the CMRO, TE, WHM, and Site
Environmental Compliance Manager of discrepant load.

- | 2.5.16 RCT, perform contamination swipes of payload bottom.

- 2.5.17 Move payload assembly to facility pallet.

- | 2.5.18 RCT, perform contamination swipes of ICV interior.

2.5.19 RCT, perform Step 2.5.9 if not previously performed.

2.5.20 RCT, monitor swipes for gross levels of activity.

NOTE

The maximum CH surface storage capacity for the shielded storage area is one fully loaded facility pallet, or a maximum waste volume of 9 m³.

2.5.21 If placing a facility pallet into the Shielded Storage Room, perform the following:

[A] Conduct a surface area inspection of the shielded storage room.

[B] Document inspection on Attachment 1, Surface CH TRU Mixed Waste Handling Area Preoperational Inspection, of WP 05-WH1101.

2.5.22 WH, If waste shipment contains Polychlorinated Biphenyls (PCBs), verify waste containers are labeled with a PCB warning label, circle appropriate result, and initial Attachment 1.

- If label is not present, contact WHE.

SIGN-OFF or N/A

2.5.23 **IF** handling SWBs and slip sheet installation is required, **THEN** perform the following:

[A] Remove ratchet straps.

[B] Raise upper SWB.

[C] RCT, perform contamination swipes on newly exposed areas of SWB (if applicable).

[D] Install slip sheet.

[E] Lower SWB.

[F] RCT, monitor swipes for gross levels of activity.

2.5.24 RCT, verify activity on swipes of bottom of payload and ICV interior performed in Step 2.5.16 and Step 2.5.18 are below acceptable limits.

SIGN-OFF

2.5.25 RCT, **IF** shipment contains high-wattage waste **AND** activity has been verified below acceptable limits, **THEN** initial applicable steps on Attachment 4 of DOE/WIPP 02-3220.

2.5.26 RCT, verify activity on swipes of upper and lower areas of payload assembly and newly exposed areas of SWB (if applicable) are below acceptable limits as performed in Step 2.5.9 and Step 2.5.23.

SIGN-OFF

2.5.27 Remove guide tubes (if applicable).

2.5.28 WH, **IF** dunnage is removed, **THEN** RCT:

- [A] Perform contamination swipes of newly exposed area of payload.
- [B] Monitor swipes for gross levels of activity.
- [C] Verify activity on swipes is below acceptable limits.

SIGN-OFF or N/A

CAUTION

Criticality Safety Administrative Control: Waste shall be stored in the WHB no greater than two drums or two boxes high.

2.5.29 **IF** required to move/stack payloads in the CH Bay, **THEN** perform the following:

- [A] When stacking payloads, record required information on Attachment 2 and initial Attachment 1.
- [B] Inspect payloads to be moved for damage.
- [C] Remove tiedown assembly (if necessary).
- [D] Stack payloads per Attachment 2.
- [E] RCT, perform dose rate survey of the payload.

SIGN-OFF or N/A

2.5.30 RCT, if newly exposed area of payload pallet/payload exists, perform the following:

- [A] Contamination swipes of newly exposed area of payload pallet/payload.
- [B] Monitor swipes for gross levels of activity.
- [C] Verify activity on swipes is below acceptable limits.

SIGN-OFF or N/A

NOTE

Waste containers shall **NOT** be stored in the WHB for longer than 60 days.

2.5.31 Secure payload assembly to facility pallet with tie-down assembly.

2.5.32 Performers of procedure, enter printed name, signature, date, and initials on Attachment 1.

2.5.33 Place Attachment 1 of WP 05-WH1025 with payload.

CAUTION

The following TSRs are related to frequency and severity of fires. Failure to comply with any of the following TSRs must be IMMEDIATELY reported to the CMRO.

- When waste is stored in the southwest corner of the CH BAY, diesel powered equipment used in the TMF shall maintain a 15 ft standoff distance from the common wall between the CH BAY and the TMF or a fire watch is posted with the diesel equipment being operated.
- When waste is stored in the northeast corner of the CH BAY, diesel powered equipment used in the RH BAY shall maintain a 15 ft standoff distance from the common wall between the CH BAY and RH BAY or a fire watch is posted with the diesel equipment being operated.
- No more than three pallets of fiberboard slip sheets and one pallet of polyethylene slip sheets shall be stored in the CH BAY. Pallets of slip sheets must be stored at least 10 ft away from waste. No more than one gallon of denatured alcohol may be at each TRUDOCK location. Pallets of slip sheets must not be stacked and a 10 ft distance maintained between each slip sheet pallet.

NOTE

During normal operations, the maximum CH Bay surface storage area (including the Shielded Storage Room) capacity is thirteen (13) fully loaded pallets and four (4) CH Packages at the TRUDOCKs with payloads remaining in the TRUPACT or HalfPACT (with or without lids removed), not to exceed a maximum waste volume of 135.9 m³.

Minimum spacing of 44 inches (1.1 m) must be maintained between loaded facility pallets.

- 2.5.34 Transport loaded facility pallet to CH container storage area, Shielded Storage Room.

OR

IF downloading to the U/G for emplacement,
THEN download in accordance with WP 05-WH1025.

- 2.5.35 RCT, ensure proper posting criteria once waste is placed in CH Bay storage area in accordance with WP 12-HP1500.

3.0 REMOVING STUCK LIDS WITH NITROGEN OR COMPRESSED AIR

- 3.1 Perform the following for compressed air or nitrogen:
- 3.1.1 If not already installed, install vent port tool hand-tight.
 - 3.1.2 Connect Pressure Assembly to quick disconnect on vent port tool (Reference Attachment 4).
 - 3.1.3 Close valve V-1.
 - 3.1.4 Close valve V-2.
 - 3.1.5 Ensure that the supply valve is closed.
 - 3.1.6 Ensure that the back pressure relief valve is fully backed off.
 - 3.1.7 Ensure that the pressure regulator is fully backed off.
 - 3.1.8 Connect supply line and regulator to nitrogen-bottle or compressed air source.
 - 3.1.9 Open supply valve and adjust N₂ or air supply regulator to a maximum of 150 psig.
 - 3.1.10 Adjust R1 to about 2.1 psig.

- 3.1.11 Adjust R2 until it begins to relieve pressure.
- 3.1.12 Adjust R1 to fully backed off.
- 3.1.13 Bleed briefly through V-1.
- 3.1.14 Adjust R1 to about 1 psig.
- 3.2 Ensure that the counterweights are at 180 degrees and 000 degrees (± 2 degrees).

WARNING

The ICV or OCV should not be pressurized above 2 psi to avoid personnel injury. A loaded ICV **SHALL NOT** be pressurized unless precautions are taken to prevent possible contamination when lid is raised.

CAUTION

When lifting ICV lid, load cell reading **SHALL NOT** exceed 5,000 lb when weight of ACGLF is zeroed out, **OR** 7,500 lb when weight of ACGLF is included.

CAUTION

When lifting OCV lid, load cell reading **SHALL NOT** exceed 7,500 lb when weight of ACGLF is zeroed out, **OR** 10,000 lb when weight of ACGLF is included.

- 3.3 Attempt to lift lid using crane at the slowest rate possible while monitoring load cell.
- 3.4 Perform the following while attempting to lift lid with crane:
 - 3.4.1 Throttle valve V-2, keeping pressure ≤ 2 psi.
 - 3.4.2 When lid becomes loose, close V-2.
 - 3.4.3 Close supply valve.
 - 3.4.4 Open V-1 to depressurize assembly.
 - 3.4.5 Disconnect supply line from pressure assembly.

- 3.4.6 Disconnect pressure assembly from vent port tool.
- 3.4.7 Disconnect vent port tool and survey tool if applicable.
- 3.4.8 Disconnect supply line and regulator from nitrogen bottle or compressed air source.
- 3.4.9 Raise lid as directed by RCT and continue with normal operations.

4.0 WHE REVIEW

4.1 WHE, ensure the following:

- Attachment 1 is completed properly.
- Attachment 2 is completed properly, if applicable.
- Attachment 4, of WP 08-NT3020 is complete, if applicable.
- Attachment 4, of DOE/WIPP 02-3220 is complete, if applicable.
- Attachment 10, of DOE/WIPP 02-3220 is complete, if applicable.

4.2 For high-wattage shipments, retain a reference only copy of DOE/WIPP 02-3220, Attachment 4 and 10, and forward the original to the TE, if applicable.

4.3 For Controlled Waste shipments, retain a reference only copy of WP 08-NT3020, Attachment 4 and forward the originals to the TE, if applicable.

4.4 Forward Attachment 1 and, if applicable, Attachment 2 to the Records Coordinator.

Attachment 1 - CH Waste Processing Data Sheet

REMARKS: _____

REVIEW/VALIDATION: _____ / _____ / _____
WHE (Print Name) Signature Date

| Attachment 3 - CH Waste Storage Area Capacity

SECTION 1: Projected Volume in CH Bay Storage Area

Total projected volume in CH Bay storage area

| Not to exceed 135.9 m³; the equivalent of thirteen (13) fully loaded pallets (including half
| pallets) and four (4) CH Packages at the TRUDOCKs, with or with out lids removed and
| payloads remaining in the TRUPACT or HalfPACT.

SECTION 2: Projected Volume in Shielded Storage Area

NOTE

This does **NOT** increase the CH Bay Storage Area by one pallet.

Total projected volume in shielded storage area

(Not to exceed 9.0 m³; the equivalent of one fully loaded pallet.)

Section 3: Projected Volume in Surge Storage Area

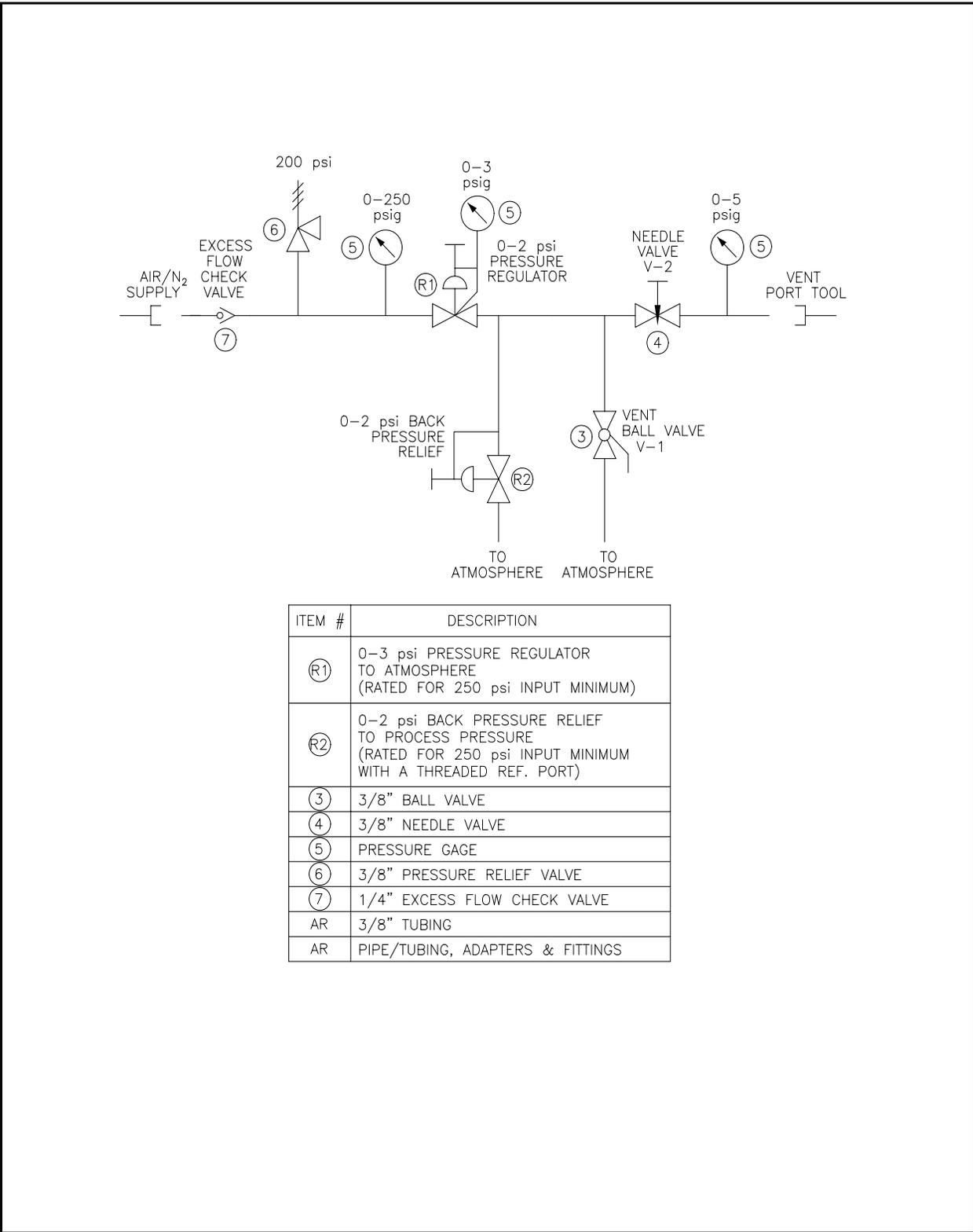
NOTE

| Waste Operations Manager approval required prior to Surge Storage
| Area use. Volume is based on Attachment M-1 of the HWFP.

Total projected volume in Surge Storage Area not to exceed 45.3 m³

(The equivalent of five fully loaded pallets.)

Attachment 4 - Flow Diagram for ICV/OCA Lid Pressurization Assembly



ITEM #	DESCRIPTION
(R1)	0-3 psi PRESSURE REGULATOR TO ATMOSPHERE (RATED FOR 250 psi INPUT MINIMUM)
(R2)	0-2 psi BACK PRESSURE RELIEF TO PROCESS PRESSURE (RATED FOR 250 psi INPUT MINIMUM WITH A THREADED REF. PORT)
(3)	3/8" BALL VALVE
(4)	3/8" NEEDLE VALVE
(5)	PRESSURE GAGE
(6)	3/8" PRESSURE RELIEF VALVE
(7)	1/4" EXCESS FLOW CHECK VALVE
AR	3/8" TUBING
AR	PIPE/TUBING, ADAPTERS & FITTINGS