Allen, Pam, NMENV

From: Maestas, Ricardo, NMENV
Sent: Tuesday, January 20, 2015 5:10 PM
To: Allen, Pam, NMENV
Subject: FW: WIPP Standard Operating Procedures: Site Derived Mixed Waste Handling and CH Surface TRU Mixed Waste Handling Area Inspections
Attachments: WP05-WH1036 site derived mixed waste handling.pdf; WP 05--WH1101CH Surface TRU mixed waste handing area inspections.pdf

From: Kliphuis, Trais, NMENV
Sent: Tuesday, June 17, 2014 3:54 PM
To: Maestas, Ricardo, NMENV; Smith, Coleman, NMENV; Holmes, Steve, NMENV
Subject: Fwd: WIPP Standard Operating Procedures: Site Derived Mixed Waste Handling and CH Surface TRU Mixed Waste Handling Area Inspections

Sent on a Sprint Samsung Galaxy Note® 3

-------- Original message --------
From: "Chavez, Rick - RES"
Date:06/17/2014 3:35 PM (GMT-07:00)
To: "Kliphuis, Trais, NMENV"
Cc: "Kehrman, Bob - RES" ,"Stone, Anthony - DOE"
Subject: WIPP Standard Operating Procedures: Site Derived Mixed Waste Handling and CH Surface TRU Mixed Waste Handling Area Inspections

Trais:

Here are the procedures that we discussed this afternoon.

The relevant steps in WP 05-WH1036 are 6.1-6.3 and for WP 05-WH1101 are 7.1 – 7.3.

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Working Copy

WP 05-WH1036

Revision 13

Site-Derived Mixed Waste Handling

Technical Procedure

EFFECTIVE DATE: 05/05/14

Randy Britain
APPROVED FOR USE

TABLE OF CONTENTS

CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
9	12/29/10	• Made permit-related changes to the Introduction (deleted reference), Referenced Documents (deleted two references), and Precautions and Limitations last bullet on page 9 (changed reference).
10	11/26/12	• Editorial revision in accordance with MD 1.1.
11	08/09/13	• Added WP 05-WH.02 to References table. • Added notes above substep 1.1.7 and step 2.5 stating that more than one Waste Stream Profile number may be applied to a site-derived waste container. • Added bullets under steps 2.4, 2.14, and 4.29 indicating that all WSPF numbers that were applied to the original waste container shall be recorded on applicable attachments. • Added RES Manager in substep 7.4.3 to distribution of record packages. • Revised step 7.5 to clarify/update criteria for DA performance of completeness checks and data comparison, RES data package verification, and DBA's role regarding data input into the WDS. • Added steps 8.4 and 8.5 providing WHE with list of personnel to email when emplacement is complete.
12	12/19/13	• Deleted radiological value requirements in Precautions and Limitations section. • Added a Note to the Performance section concerning applicability of this procedure. • Changed bullet under step 2.4 regarding estimated weight of waste material to step 2.6. • Added Section 5.0, Site-Derived Waste Container Preparation. • Added Section 6.0, Site-Derived Waste Item Inspection and Containerization (Non-Related Waste Container). • Minor editorial changes throughout.

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
13	05/05/14	• Added in Equipment, items for Waste Collection. — For Solidification, first hyphen PPE "as per IH&S." • Deleted in Precautions and Limitations, words concerning the New Mexico Hazardous Waste Act 74-4-13 for clarity. • Deleted in Precautions and Limitations, bullet 19 concerning charged fire extinguishers. • Added Prerequisite Actions 5.0 concerning the calculating of waste volumes and PE-Ci limits for storage in the WHB, in reference to WP 05-WH1101. • Moved step 2.5 under step 2.6, and 6.5 under step 6.6, therefore changing the order. • Deleted in step 6.4, bullet five concerning WSPF numbers on attachment 1. • Deleted in step 6.15, bullet five concerning WSPF numbers from step 5.1.7. • Added steps 6.15, 6.16, and 6.26 ensuring that substeps 5.1.1 – 5.1.5 of 05-WH1101 are completed and WHB is configured for Waste Handling Mode. • Added SIGN-OFF WHE, Attachment 2. • Added in steps 6.17 and 6.18 "(kg)" addressing weight. • Added steps 6.21 through 6.23, concerning designated Storage Area in the Waste Handling Building and approval of waste containers on spill tray, or facility pallet, and the tie down of containers with approved nets and ratchet straps. • Added in step 7.1, "(Sections 1, 2 and 3)."

INTRODUCTION [1, 2]

This procedure provides instructions for managing site-derived transuranic (TRU) waste (liquid and/or solid) at the Waste Isolation Pilot Plant (WIPP). Entry into this procedure is based upon a previous determination that resulting waste has been classified as site-derived waste. Previous waste determinations include process knowledge, a breach, and/or spill response activities from the original waste container (i.e., WP 12-ER4902 and WP 12-ER4903). Site-derived waste may include, but is not limited to, the following materials contaminated with TRU Waste characterized for disposal at WIPP in accordance with the Waste Analysis Plan (WAP).

- Decontaminating liquids
- Water
- Salt
- High-Efficiency Particulate Air (HEPA) filters
- Swipes
- Protective Clothing (PC) and Personal Protective Equipment (PPE)
- Soil
- Wastes from spill response, sampling and decontamination activities
- Rags, Wipes

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, Waste Container Log Sheet
- Attachment 2, Site-Derived Waste Criteria Compliance Tag
- Attachment 3, WDS/WWIS Input Data Sheet, Site-Derived Waste
- Container Data Report
- Copy of "emplacement complete" notification email

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
Title 40 *Code of Federal Regulations* (CFR) Part 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions"	✓		2
Hazardous Waste Facility Permit, EPA Identification Number NM4890139088	✓		
DOE/WIPP-02-3122, *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*		✓	3

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*	✓		
DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*	✓		1
WP 05-WH.02, *WIPP Waste Handling Operations WDS User's Manual*	✓	✓	
WP 05-WH1011, *CH Waste Processing*		✓	
WP 05-WH1025, *CH Waste Downloading and Emplacement*		✓	
WP 05-WH1101, *Surface Transuranic Mixed Waste Handling Area Inspections*		✓	
WP 05-WH1744, *Surface RH Transuranic Mixed Waste Handling Area Inspections*		✓	
WP 05-WH4401, *Waste Handling Operator Event Response*		✓	
WP 12-ER4902, *Hazardous Material Spill and Release Response*		✓	
WP 12-ER4903, *Radiological Event Response*		✓	
WP 12-HP1100, *Radiological Surveys*	✓		
WP 12-HP3600, *Radiological Work Permits*	✓		
WP 12-HP4000, *Emergency Radiological Control Responses*		✓	
WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description*	✓		

EQUIPMENT [3]

- For Waste Collection:
  - Containers that meet U.S. Department of Transportation (DOT) Type 7A, or equivalent, packaging requirements may be used for TRU waste generator site-derived waste collection. Container types and equipment used for the collection of derived waste are:
    - 55-gallon drums (only 55-gallon drums shall be used in the RH process)
    - 85-gallon overpacks
    - Standard Waste Boxes (SWBs)

- Drum and SWB filters that meet the applicable acceptance criteria and specifications of DOE/WIPP-02-3122
- Poly liners/bags
- Tape
- Bench scale (as needed)
- Floor scale (as needed)
- Permanent marker
- In-line load cell (as needed)
- Sockets and wrenches for drums
- Allen head sockets for SWB
- Ratchet
- Torque wrench
- Calculator

- For Solidification:
  - PPE as per IH&S
  - Measure of acidity and alkalinity (pH) meter with pH seven buffer or litmus paper
  - Trisodium phosphate and monosodium phosphate (for pH control)
  - 150 to 200 lb AQUASET/drum
  - Stirrer paddle

PRECAUTIONS AND LIMITATIONS

- Maximum volume of derived waste that can be stored in the contact-handled (CH) Site-Derived Waste Storage Area at one time may not exceed 1.88 cubic meters (m^3) (i.e., capacity of one SWB).[3]

- Maximum volume of derived waste that can be stored in the remote-handled (RH) Hot Cell or RH Bay Derived Waste Storage Area may not exceed 7.4 ft^3 at one time (one 55-gallon drum)[3]

- Liquids shall be collected and solidified in 55-gallon drums.

- Storage of site-derived waste containing polychlorinated biphenyls (PCBs) in the Waste Handling Building (WHB) shall not exceed 60 days. The 60-day time period begins as soon as waste is placed into the collection container[3]

- If stored, site-derived waste containers shall be stored on standard drum pallets that are polyethylene trays with a grated deck that will elevate site-derived waste containers at least six inches (15 centimeters [cm]) from the floor surface, and provide approximately 50 gallons (190 liters [L]) of secondary containment capacity.[3]

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

- Abnormal events that require cessation of this procedure are to be performed in accordance with WP 05-WH4401 and WP 12-HP4000 concurrently.

- Derived waste from the RH Bay or RH Hot Cell may be downloaded and emplaced as CH waste in accordance with WP 05-WH1011 and WP 05-WH1025.

- Containers storing site-derived waste must be kept closed except when adding, removing, or sampling waste.

- All weight measurements must be recorded in kilograms (kg).

- Radiological Work Permits (RWPs) and other administrative controls provide protective measures to help ensure new hazardous constituents, will not be added during decontamination activities. Site Environmental Compliance (SEC) must be consulted to ensure hazardous waste numbers are appropriately applied to the derived waste.

- Radiological control personnel and the WHE shall be contacted prior to opening a site-derived waste collection container for adding, removing, or sampling waste.

- Each drum must have at least one filter installed. Each SWB must have at least two filters installed, and vacant ports must be plugged.[3]

- Shielding **MUST NOT** be used to meet the 200 millirem per hour (mR/h) limit.
- The following radiological values **MUST NOT** be exceeded:[1]
  - Contact dose rate of 200 mR/h at any point on site-derived waste containers
  - 20 disintegrations per minute (dpm)/100 cm^2 alpha loose surface contamination on exterior of waste container
  - 200 dpm/100 cm^2 beta-gamma loose surface contamination on exterior of waste container
- A weight of 1,000 lb (454 kg) per 55/85-gallon drum **MUST NOT** be exceeded.
- A gross weight of 4,000 lb (1,814 kg) per SWB **MUST NOT** be exceeded.
- Fire extinguisher charging cartridges will be removed, **OR** verified fully discharged and clearly punctured, prior to inclusion in site-derived mixed waste.
- If the site-derived waste is contaminated with PCBs, the site-derived waste container shall be labeled as containing PCBs as soon as waste is placed into the collection container.
- The following items are prohibited in site-derived waste containers destined for emplacement underground: [3]
  - Compressed gasses
  - Corrosives
  - Explosives
  - Pyrophorics
  - Pressurized containers
  - Free liquids
  - Noncompatible materials
  - Hazardous waste having U. S. Environmental Protection Agency (EPA) hazardous waste numbers other than those listed in Part A of the HWFP

- If the cumulative Pu-239 FGE of the combined original waste containers exceeds 200 grams, Nuclear Safety must be contacted.
- Liquid transfer shall not exceed 40 gallons per 55-gallon drum.
- Under no circumstances should containers be left open while personnel are not present.
- Efforts shall be taken to reduce the amount and toxicity (e.g., efforts to minimize the introduction of additional hazardous substances) of site-derived waste that is generated.
- Step 9.1 may be performed at any time during the performance of this procedure.
- Inspection, containerization, and collection/solidification in the RH Hot Cell shall be performed using the applicable equipment operating procedures.
- All N/As on attachments 1, 2, and 3 must be initialed by the person performing the step.

PREREQUISITE ACTIONS

1.0 WHE, obtain RWP prior to handling (pumping, pouring, transferring, etc.) radiologically contaminated waste.

2.0 WHE, verify adequate waste handling operations staff is available to support planned activities.

3.0 WHE, verify plant is configured for waste handling mode by contacting the Central Monitoring Room Operator (CMRO) prior to performing sections 2.0, 3.0, 4.0, 5.0, 7.0, and 11.0.

4.0 WHE, ensure the Site-Derived Waste Storage Area inspections have been completed per WP 05-WH1101 or WP 05-WH1744, as needed.

5.0 Prior to introducing additional waste into the designated storage area refer to WP 05-WH1101 attachment 7 to enter waste volumes (m^3) and PE-Ci limits for storage in the WHB.

PERFORMANCE

NOTE

If site-derived waste is generated then sections 1.0, 2.0, and 3.0 are not applicable.

If waste is generated from a waste container within a TRUPACT-II, TRUPACT-III, or RH Cask then sections 5.0 and 6.0 are not applicable.

NOTE

Sections of this procedure do not have to be performed in the order written if deemed necessary by WHE. Attachments are required to be completed as the applicable step is completed.

1.0 WASTE CONTAINER PREPARATION

NOTE

Adequate aisle space for passage of emergency equipment, emergency response actions, and/or container inspections must be maintained when placing containers in area (44 inches minimum).

1.1 Prepare waste containers as follows:

1.1.1 Stage approved waste containers on spill tray, or equivalent, in designated area.

1.1.2 Line waste container with poly bag extending beyond top of container and record liner type (poly bag **AND/OR** rigid liner) on attachment 3.

1.1.3 Fold bag back over top of receptacle and down outside.

1.1.4 Record shipment number on attachments 1, 2, and 3.

1.1.5 Record original container number (as received) on attachments 1, 2, and 3.

1.1.6 WHE, assign Waste Data System (WDS)/WIPP Waste Information System (WWIS) waste container ID number by appending "WI" (the two-digit ID code for WIPP) to the original container number, and record on attachments 1, 2, and 3.

NOTE

More than one Waste Stream Profile (WSPF) number may be applied to the site-derived waste container.

1.1.7 Contact **SEC** for new WSPF number(s) and record WSPF number(s) on attachments 1, 2, and 3.

1.1.8 Vent site-derived waste container using appropriate filters.

1.1.9 Record Torque Wrench serial number and calibration due date on attachment 1.

1.1.10 Torque filter to 10 ft-lb (± 5 ft-lb).

1.1.11 Record filter model number(s) on attachment 3.

1.1.12 Record filter(s) installation date on attachment 3.

1.1.13 Weigh container(s) and mark tare weight on container(s).

1.1.14 RCT, obtain and record radiological survey number on attachment 2.

2.0 SITE-DERIVED WASTE ITEM INSPECTION AND CONTAINERIZATION

WARNING

To prevent unnecessary exposure to radioactive, and/or hazardous materials, a sealed bag or container **MUST NOT** be opened for inspection unless there is reason to believe it contains prohibited items, or contents cannot be otherwise identified.

2.1 If required to reduce the amount of material handling, relocate site-derived waste container to the work site.

NOTE

The lid to the site-derived waste container may be installed and removed, as necessary, for adding, removing, or sampling waste.

2.2 Inspect all items delivered to waste container, and ensure absence of prohibited items.

2.3 **IF** prohibited items are identified upon inspection,
THEN notify WHE.

NOTE

Source and identity of contaminated material are needed to provide record of source (and disposition) of TRU waste generator site-derived materials.

Identity will include original waste container, TRUPACT-II, RH Cask, TRUPACT-III, or shipment numbers, if applicable. This information is available from process knowledge, WDS/WWIS printouts, Hazardous Waste Manifests, sample analysis results, waste certification documents, and shipping data packages.

2.4 Record the following on the applicable attachment:

- Origin (source) of waste, attachment 1
- Description of CONTENTS of the bagged material from the list of material parameters, attachment 1
- Hazardous waste numbers, if applicable, attachment 1
- Indicate on attachments 1, 2, and 3 if waste contains PCBs by circling appropriate results and record date.

NOTE

More than one WSPF number may be applied to the site-derived waste container.

- All WSPF numbers that were applied to the original waste container, TRUPACT-II, RH Cask, TRUPACT-III, or shipment numbers as noted in note above step 2.4, on attachment 1.

2.5 Record the estimated weight of each type of waste material parameter (the sum of the figures should equal the gross bag weight [e.g., 5 kg of cellulosics, 2 kg of rubber, 3 kg of plastics equal 10 kg gross bag weight]) on attachment 3.

2.6 Weigh bagged material and record weight (kg) on attachment 1.

2.7 RCT, ensure appropriate radiological labeling is affixed to exterior of waste container.

2.8 Place PCB warning label on container as directed by WHE, if applicable.

2.9 Place waste bag into solid waste container.

2.10 **WHEN** waste container is to be sealed,
THEN WHE, ensure the following:

- Container contains as little free flowing liquid as reasonably possible.
- Internal containers shall contain less than 1 inch of liquid in the bottom of the container.
- Total residual liquid in any payload container does not exceed 1 percent by volume.

2.11 Fold-and-tape or twist-and-tape (J-seal) inner plastic bag.

2.12 WHE, estimate volume of waste material (fill factor) in drum and record on attachment 3 (e.g., 20%, 30%, 95%).

2.13 Secure lid on waste container and record date sealed on attachments 1, 2, and 3.

SIGN-OFF WHE, Attachment 2

2.14 RCT, perform contamination and dose rate surveys of waste container exterior and record results on attachment 2.

SIGN-OFF RCT, Attachment 2

2.15 Record the following on attachment 3:

- Waste Type Code
- Handling Code
- Container Type Code
- Liner Type (poly bag **AND/OR** rigid liner)
- All WSPF numbers that were applied to the original waste container, TRUPACT-II, RH Cask, TRUPACT-III, or shipment numbers as noted in note above step 2.4.

2.16 Weigh sealed waste container.

2.17 Record gross weight of waste container on attachment 3.

2.18 Subtract tare weight marked on waste container from gross weight of waste container and record as waste weight on attachment 3.

2.19 If waste container was moved to the work site, move the container to the Site-Derived Waste Storage Area.

2.20 **IF** waste container contains no liquid wastes,
THEN N/A the following on attachment 1:

- Initial pH Level
- pH level after neutralization
- Date liquid waste solidified

2.21 **GO TO** section 7.0 for container identification requirements.

3.0 LIQUID WASTE COLLECTION

3.1 **GO TO** section 1.0 for waste container preparation, and
RETURN TO step 3.2.

3.2 If required to reduce the amount of material handling, relocate site-derived waste container to the work site.

NOTE

The lid to the site-derived waste container may be installed and removed, as necessary, for adding, removing, or sampling waste.

3.3 Collect contaminated liquids and manage waste containers as follows:

3.3.1 If using absorbent pads for small volume of liquid, perform the following:

[A] Collect liquid with absorbent pads.

[B] Transfer pads to solid waste poly bag.

[C] Close bag by fold-and-seal or twist-and tape (J-seal) method.

3.4 If using wet vacuum with HEPA filter, perform the following:

3.4.1 Collect liquid with vacuum equipped with cord that is ground fault circuit interrupter (GFCI)-protected.

3.4.2 Transfer liquid to liquid waste containers.

3.4.3 Wipe surfaces with absorbent pads.

3.4.4 Place used pads in solid waste poly bag.

3.4.5 Close bag by fold-and-seal or twist-and-tape (J-seal) method.

3.5 If using flat shovel or scoop for dipping, perform the following:

3.5.1 Dip and transfer liquid to liquid waste containers.

3.5.2 Wipe surfaces with absorbent pads.

3.5.3 Place used pads in solid waste poly bag.

3.5.4 Close bag by fold-and-seal or twist-and-tape (J-seal) method.

3.6 If using absorbent pellets, perform the following:

3.6.1 Spread absorbent pellets over liquid to absorb all liquid present.

3.6.2 Allow 30 minutes for liquid to be absorbed.

3.6.3 If necessary, reapply additional absorbent pellets over liquid.

3.6.4 Shovel (or scoop) material and transfer to solid waste poly bag using flat shovel or scoop.

3.6.5 Wipe surfaces with absorbent pads.

3.6.6 Place used pads in solid waste poly bag.

3.6.7 Close bag by fold-and-seal or twist-and-tape (J-seal) method.

3.7 If using pump for large volume of liquid, perform the following:

3.7.1 Record the following on attachment 1:

- N/A gross weight of bagged material
- Origin (source of waste)
- Description of liquid waste in contents section
- Hazardous waste numbers, if applicable

3.7.2 Indicate on attachments 1, 2, and 3 if waste contains PCBs by circling appropriate results and record date.

3.7.3 Transfer liquid to liquid waste containers, ensuring that liquid transfer does not exceed 40 gallons per 55-gallon drum.

3.7.4 Wipe surface with absorbent pads.

3.7.5 Place used pads in solid waste poly bag.

3.7.6 Close bag by fold-and-seal or twist-and-tape (J-seal) method.

3.8 **GO TO** section 2.0 for site-derived waste item inspection and containerization, and
RETURN TO section 4.0, as applicable.

4.0 SOLIDIFICATION OF LIQUID WASTE

4.1 Ensure drum contents **DO NOT** exceed 40 gallons (24 inches) of liquid.

4.2 Contact Industrial Safety/Industrial Hygiene (IS/IH) to determine pH using pH meter or litmus paper and record on attachment 1 as initial pH level.

4.3 Obtain neutralization instructions and compatibility information from IS/IH.

4.4 If pH is between 2.0 and 5.0, add about 1/4 teaspoon of trisodium phosphate and stir liquid.

4.5 If pH is between 9.0 and 12.5, add about 1/4 teaspoon of monosodium phosphate and stir liquid.

4.6 Repeat step 4.4 or step 4.5 until pH is between 5.0 and 9.0.

4.7 **WHEN** pH is between 5.0 and 9.0,
THEN wipe contaminated stirrer as it is removed from drum.

4.8 Place used litmus paper, stirrer, and absorbent pad in solid waste poly bag for disposition.

4.9 Close bag by fold-and-seal or twist-and-tape (J-seal) method.

4.10 Record pH level on attachment 1 at pH after neutralization.

4.11 Spread entire contents of a 50 lb bag of AQUASET over surface of liquid as evenly as possible.

4.12 Wait approximately 30 minutes.

4.13 Spread contents of a second 50 lb bag of AQUASET over surface of liquid as evenly as possible.

4.14 Wait approximately 30 minutes.

4.15 Spread entire contents of a third 50 lb bag of AQUASET over surface of liquid as evenly as possible.

4.16 Place lid on drum.

NOTE

Source and identity of contaminated material are needed to provide record of source (and disposition) of TRU waste generator site-derived materials.

Identity will include original waste container, TRUPACT-II, RH Cask, or shipment numbers, if applicable. This information is available from process knowledge, WDS/WWIS printouts, Hazardous Waste Manifests, sample analysis results, waste certification documents, and shipping packages.

4.17 Record the following on the applicable attachment:

- Origin (source) of waste, attachment 1
- Description of CONTENTS of the bagged material from the list of material parameters, attachment 1
- The estimated weight of each type of waste material parameter (the sum of the figures should equal the gross bag weight [e.g., 5 kg of cellulosics, 2 kg of rubber, 3 kg of plastics equal 10 kg gross bag weight]), attachment 3
- Hazardous waste numbers, if applicable, attachment 1

4.18 Indicate on attachments 1, 2, and 3 if waste contains PCBs by circling appropriate results and record date.

4.19 Let stand for more than 24 hours.

4.20 Raise lid and inspect surface for any free-standing liquid.

4.21 If any free-standing liquid remains, add one part AQUASET to three parts standing water, by volume, to complete solidification process.

4.22 **WHEN** waste container is to be sealed,
THEN WHE, ensure the following:

- Less than two liters total residual liquid per 55-gallon drum
- Less than eight liters total residual liquid per SWB
- No free-flowing liquids containing PCBs

4.23 Close bag by fold-and-seal or twist-and-tape (J-seal) method.

4.24 WHE, perform the following for solidification of liquid waste:

- Record on attachment 1 date waste was solidified.
- Estimate volume of waste material (fill factor) in drum and record on attachment 3 (e.g., 20%, 30%, 95%).
- Record on attachment 3 description of solidified waste from the list of material parameters found on attachment 3.

4.25 Secure lid on waste container and record date sealed on attachments 1, 2, and 3.

SIGN-OFF WHE, Attachment 2

4.26 RCT, perform contamination and dose rate surveys of waste container exterior and record results on attachment 2.

SIGN-OFF RCT, Attachment 2

4.27 RCT, ensure appropriate radiological labeling is affixed to exterior of waste container.

4.28 Place PCB warning label on container as directed by WHE, if applicable.

4.29 Record the following on attachment 3:

- Waste Type Code
- Handling Code
- Container Type Code
- Liner Type (poly bag **AND/OR** rigid liner)
- All WSPF numbers that were applied to the original waste container, TRUPACT-II, RH Cask, TRUPACT-III, or shipment numbers as noted in note above step 2.4.

4.30 Weigh sealed waste container.

4.31 Record gross weight on waste container and on attachment 3.

4.32 Subtract tare weight from the gross weight of waste container and record as waste weight on attachment 3.

4.33 If waste container was moved to the work site, move the waste container to the Site-Derived Waste Storage Area.

4.34 **GO TO** section 2.0 for site-derived waste item inspection and containerization, as applicable.

5.0 SITE-DERIVED WASTE CONTAINER PREPARATION

NOTE

Adequate aisle space for passage of emergency equipment, emergency response actions, and/or container inspections must be maintained when placing containers in area (44 inches minimum).

5.1 Prepare waste containers as follows:

5.1.1 Stage approved waste containers on spill tray, or equivalent, in designated area.

5.1.2 Line waste container with poly bag extending beyond top of container and record liner type (poly bag **AND/OR** rigid liner) on attachment 3.

5.1.3 Fold bag back over top of receptacle and down outside.

5.1.4 N/A shipment number on attachments 1, 2, and 3.

5.1.5 N/A original container number (as received) on attachments 1, 2, and 3.

5.1.6 WHE, assign WDS/WWIS waste container ID number by appending "WI" (the two-digit ID code for WIPP) and "SD" (the two-digit ID code for site-derived) to next sequential number from the WDS, and record on attachments 1, 2, and 3.

5.1.7 Contact SEC for new WSPF number(s) and record number(s) on attachments 1, 2, and 3.

5.1.8 Vent site-derived waste container using appropriate filters.

5.1.9 Record Torque Wrench serial number and calibration due date on attachment 1.

5.1.10 Torque filter to 10 ft-lb (± 5 ft-lb).

5.1.11 Record filter model number(s) on attachment 3.

5.1.12 Record filter(s) installation date on attachment 3.

5.1.13 Weigh container(s) and mark tare weight on container(s).

5.1.14 RCT, obtain and record radiological survey number on attachment 2.

6.0 SITE-DERIVED WASTE ITEM INSPECTION AND CONTAINERIZATION (NON-RELATED WASTE CONTAINER)

WARNING

To prevent unnecessary exposure to radioactive, and/or hazardous materials, a sealed bag or container **MUST NOT** be opened for inspection unless there is reason to believe it contains prohibited items, or contents cannot be otherwise identified.

6.1 If required to reduce the amount of material handling, relocate site-derived waste container to the work location.

6.1.1 **IF** moving a partially loaded Site Derived Container from the Site Derived Storage Area in the Waste Handling Building to work location.

[A] **GO TO** SECTION 7.0 FOR Waste Handling Mode, and complete steps 7.1 – 7.2 **AND** return to step 6.2.

NOTE

The lid to the site-derived waste container may be installed and removed, as necessary, for adding, removing, or sampling waste.

6.2 Relocate the Site Derived Container to work location.

6.3 Inspect all items delivered to waste container, and ensure absence of prohibited items.

6.4 **IF** prohibited items are identified upon inspection,
THEN notify WHE.

6.5 Record the following on the applicable attachment:

- N/A Origin, attachment 1
- Description of CONTENTS of the bagged material from the list of material parameters, attachment 1
- Hazardous waste numbers, if applicable, attachment 1
- Indicate on attachments 1, 2, and 3 if waste contains PCBs by circling appropriate results and record date.

6.6 Record the estimated weight of each type of waste material parameter (the sum of the figures should equal the gross bag weight [e.g., 5 kg of cellulosics, 2 kg of rubber, 3 kg of plastics equal 10 kg gross bag weight]) on attachment 3.

6.7 Weigh bagged material and record weight on attachment 1 (if applicable).

6.8 RCT, ensure appropriate radiological labeling is affixed to exterior of waste container.

6.9 Place PCB warning label on container as directed by WHE, if applicable.

6.10 Place waste bag into solid waste container.

6.11 **WHEN** waste container is to be sealed,
THEN WHE, ensure the following:

- Container contains as little free liquid as reasonably possible.
- Internal containers shall contain less than 1 inch of liquid in the bottom of the container.
- Total residual liquid in any payload container does not exceed 1 percent by volume.

6.12 Fold-and-tape or twist-and-tape (J-seal) inner plastic bag.

6.13 WHE, estimate volume of waste material (fill factor) in drum and record on attachment 3 (e.g., 20%, 30%, 95%).

6.14 Secure lid on waste container and record date sealed on attachments 1, 2, and 3.

SIGN-OFF WHE, Attachment 2

6.15 RCT, perform contamination and dose rate surveys of waste container exterior and record results on attachment 2.

SIGN-OFF RCT, Attachment 2

6.16 **IF** not already in Waste Handling Mode

6.16.1 **GO TO** section 7.0 for Waste Handling Mode, and complete steps 7.1 – 7.2 **AND** return to step 6.17.

6.17 Moving of Site Derived Container

6.17.1 If site derived container is partially loaded.

[A] Stage in site derived waste container on spill tray in the Site Derived Storage Area.

6.17.2 If site derived container is fully loaded.

[A] Stage in waste containers on spill tray, or facility pallet, in designated area.

[B] If waste container has been placed on Facility pallet, tie down containers with approved nets and ratchet straps.

6.18 Record the following on attachment 3:

- Waste Type Code
- Handling Code
- Container Type Code
- Liner Type (poly bag **AND/OR** rigid liner)

6.19 Weigh sealed waste container.

6.20 Record gross weight (kg) of waste container on attachment 3.

6.21 Subtract tare weight (kg) marked on waste container from gross weight of waste container and record as waste weight on attachment 3.

6.22 **IF** waste container contains no liquid wastes, **THEN** N/A the following on attachment 1:

- Initial pH Level
- pH level after neutralization
- Date liquid waste solidified

6.23 **GO TO** section 7.0 for Waste Handling Mode, and complete step 7.3 **AND** return to step 6.24.

6.24 **GO TO** section 8.0 for container identification requirements.

7.0 WASTE HANDLING MODE

7.1 Ensure sections 4.1.1 – 4.1.5 of 05-WH1101 have been completed for Waste Handling Mode.

7.2 WHB is configured for waste handling mode.

SIGN-OFF WHE, Attachment 2

7.3 Ensure section 4.1.6 of 05-WH1101 has been completed for Storage Mode.

8.0 CONTAINER IDENTIFICATION REQUIREMENTS

8.1 Print WDS/WWIS Waste Container Data Report for the container that generated the TRU waste generator site-derived waste (Sections 1, 2, and 3).

NOTE

Bar code labels may be transmitted from the Data Administrator (DA) to the WHE via email.

8.2 WHE, refer to WP 05-WH.02 to create bar code labels.

8.3 WHE, print the labels and apply container WDS/WWIS ID number bar code labels, or hand-write container ID numbers as follows:

- Drums - place three labels on side, near bottom, and spaced about 120 degrees apart.
- SWBs - place labels on flat sides near top.

8.4 WHE, obtain and apply hazardous material/waste decals on container(s), if applicable.

9.0 COMPLETION OF RECORD PACKAGE

9.1 All performers responsible for step completion on attachments 1 and 2, enter printed name, signature, initials, and date on applicable attachments.

9.2 Combine attachments 1, 2, and 3 to form record package.

10.0 VERIFICATION OF RECORD PACKAGE

10.1 WHE, review attachments 1, 2, and 3 for completion.

10.2 WHE, ensure container is properly labeled (bar code, hazardous waste, radiological).

10.3 WHE, enter printed name, signature, and date on attachments 1, 2, and 3.

10.4 Waste Handling Manager (WHM), perform the following:

10.4.1 Verify waste meets waste form and packaging requirements.

10.4.2 Enter printed name, signature, and date on attachments 1, 2, and 3.

10.4.3 Forward a copy of the record package to WDS/WWIS DA and Regulatory Environmental Services (RES) Manager.

10.5 WDS/WWIS DA, perform the following:

NOTE
The completeness check will verify that all waste streams associated with the original waste container are recorded on attachments 2 and 3.

10.5.1 Perform a completeness check of data on all attachments.

10.5.2 If any of the attachments have missing or incomplete information, contact the WHM.

NOTE

The data comparison will verify that proper justification is provided to show that all waste streams associated with the original waste container are assigned to the site-derived waste container and are recorded on ALL attachments. The data comparison will verify that ALL hazardous waste numbers assigned to the original waste container are assigned to the site-derived waste container.

10.5.3 Perform a data comparison of WP 05-WH1036 criteria with the information that was recorded on each attachment.

10.5.4 If issues are identified during the data comparison, contact the WHM via email.

10.5.5 If no issues are identified or issues are adequately addressed during the data comparison, notify the RES Manager via email that data comparison is complete.

NOTE

Container data for site-derived waste does not undergo the automated edit/limit checks. Data verification by RES will include an evaluation that the container meets the WIPP Waste Acceptance Criteria and Hazardous Waste Facility Permit requirements. Prior to notification to the DBA to input the container data to the WDS production instance, data verification by RES and notification to WHM is required.

10.6 DA, forward Data Package to DBA to input container data in the WDS.

10.7 DBA, notify DA when container data input in the WDS is complete.

10.8 DA, generate a Container Data Report for the waste container and forward to WHM and RES Manager or designee via email.

10.9 WHE, print a copy of the Container Data Report from the WDS/WWIS dashboard.

10.10 WHE, forward attachments 1, 2, and 3 and WDS/WWIS Container Data Report to Records Coordinator.

10.11 WHE, coordinate with DBA to electronically emplace container in the WDS.

11.0 PREPARATION OF CONTAINERS FOR EMPLACEMENT UNDERGROUND

NOTE

The WDS DBA may be contacted for assistance with emplacing the site-derived waste container.

11.1 WHTs, configure waste containers in an approved payload assembly, or as a single unit.

11.2 WHTs, secure assemblies/single unit to a facility pallet in accordance with WP 05-WH1011.

11.3 WHTs/WHE, download and emplace assemblies/single unit in accordance with WP 05-WH1025.

11.4 WHE, notify WHM, Central Characterization Program Waste Information Tracking Systems Manager, and the RES Manager via email when site-derived waste containers have been emplaced.

11.5 WHE, forward a copy of the notification email to Records Coordinator.

Attachment 1 – Waste Container Log Sheet

WASTE CONTAINER LOG SHEET	Page ___ of ___
Shipment Number:	
Container ID (as received):	
Container ID (to be emplaced):	
Waste Stream Profile (WSPF) #:	
Gross Weight of Bagged Material (if applicable):	
Origin:	
Contents:	
Hazardous Waste Numbers (if applicable):	
PCB Waste (circle appropriate results) YES NO Date:	
Initial pH Level (if applicable):	
pH Level After Neutralization (if applicable):	
Date Liquid Waste Solidified (if applicable)	
Container Filter Torque Wrench Serial Number/Calibration Due Date:	
Date Container was Sealed:	
Comments:	
Performers responsible for each step completion, enter printed name, signature, initials, and date below:	

Print Name	Signature	Initials	Date
REVIEW			
WHE (Print Name)	Signature		Date
VALIDATION			
WHM (Print Name)	Signature		

Attachment 2 – Site-Derived Waste Criteria Compliance Tag

WIPP SITE-DERIVED WASTE CRITERIA COMPLIANCE TAG			
Shipment Number:			
Container ID (as received):			
Container ID (to be emplaced):			
WSPF #:			
Radiological Survey Number:			
PCB Waste (circle appropriate results) YES NO Date:			
Date Sealed: _____ **CONTAINS NO PROHIBITED MATERIAL**			
WHE (Print Name)	Signature		Date
MAXIMUM CONTACT DOSE RATE β-γ _____ mR/h ή _____ mR/h	MAXIMUM SURFACE REMOVABLE CONTAMINATION a _____ dpm/100cm^2 β-γ _____ dpm/100cm^2		
RCT (Printed Name)	Signature		Date
WHB configured for Waste Handling Mode			WHE
Performers responsible for each step completion enter printed name, signature, initials, and date below:			
Print Name	Signature	Initials	Date
REWIEW:			
WHE (Print Name)	Signature		Date
VALIDATION			
WHM (Print Name)	Signature		Date

Attachment 3 – WDS/WWIS Input Data Sheet, Site-Derived Waste

WDS/WWIS INPUT DATA SHEET, SITE-DERIVED WASTE			
FIELDS APPLICABLE TO DERIVED WASTE			
Shipment Number			
Container ID	Container ID as received ID #	Data will be input to waste container comments in the WDS/WWIS	
WIPP Site ID	Two-digit identification code assigned to WIPP (WI) plus container ID number as received ID #	WI Data will be input to CNTR-NUM in the WDS/WWIS	
WSPF Number	WSPF for original shipment ID #	Data will be input to waste container comments in the WDS/WWIS	
Filter Model Number	Vendor model number of filter(s) used to vent container		
Filter Installation Date	Data filter was installed in waste container		
PCB Waste	Circle appropriate results	YES NO	Date
Fill Factor	Estimated percentage of waste container volume occupied by the waste		
Date Sealed	Date waste container was closed		
Waste Type Code	Code is "TRU" for nonmixed waste and "MTRU" for mixed waste		
Handling Code	Code is "CH" for contact-handled or "RH" for remote-handled TRU waste		
Container Type Code	3-digit container type code: 001 - 55-gallon drum; 002 – SWB; 006 – 85-gallon drum		
Liner Type	Identifies type of container liner, if applicable		
Gross Weight	Gross weight of a container		
Waste Weight	Weight of waste inside container		

Attachment 3 – WDS/WWIS Input Data Sheet, Site-Derived Waste

List of Material Parameters [3, 4]		
WDS/WWIS Data Entry Code	Material Parameter	Material Parameter Weight (kg)
1	Iron-base metals/alloys	
2	Aluminum-base metals/alloys	
3	Other metals/alloys	
4	Other inorganic materials	
5	Cellulosics	
6	Rubber	
7	Plastic	
8	Solidified inorganic material	
9	Solidified organic material	
10	Soils	
11	Steel container materials	
12	Plastic/liners container materials	
13	Cellulosic packaging material	
14	Magnesium oxide	
15	Steel emplacement material	
16	Cellulosic emplacement material	
17	Rubber emplacement material	
18	Plastic emplacement material	

Description of Solidified Waste

REVIEW

WHE (Print Name)	Signature	Date

VALIDATION

WHM (Print Name)	Signature	Date

Working Copy

WP 05-WH1101

Revision 22

CH Surface Transuranic Mixed Waste Handling Area Inspections

Technical Procedure

EFFECTIVE DATE: 05/02/14

Randy Britain
APPROVED FOR USE

CONTINUOUS USE PROCEDURE

TABLE OF CONTENTS

CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
13	12/17/10	• Added 13 Ton Forklifts 41-H-012D and 41-H-012E to Attachment 5 • Added Trailer Jockeys 41-H-151A and 41-H-151B to Attachment 5
14	02/10/11	• Changed wording in Bullet 1 of the Precautions and Limitations • Removed 2nd and 3rd bullets of the Precautions and Limitations • Added Shaft Access Area Checkboxes to Attachment 5
15	06/17/11	• Added Attachments 6, 7, and 8 • Added 05-WH1210 to referenced documents • Changed the area for the CH Bay Storage Area and the Total for CH Waste on table on page 7 • Added clarification on a SLB2 being considered a full pallet to 1st bullet on page 7 • Changed from SEC to WHE in step 2.4 • Added TRUPACT-III to step 2.1.5 • Moved section 5.0 to section 8.0 • Added sections 6.0 and 7.0
16	06/28/11	• Added remarks section to Attachment 6
17	10/27/11	• Added Door #117 Security Seal Intact to Attachment 6
18	01/05/12	• References: — Added WP 05-WH1201, TRU-PACT-III Handler • Performance: — Step 1.1, added "and/or is stored" for waste to be handled. — Step 2.1, added "at least once every seven (7) days or per WHM direction" for waste to be stored.

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
19	01/29/13	• Added substep 4.1.7- "Reviewer, proceed to..." • Editorial changes to steps to be more concise • Attachment 2 - Added "room 108" to the "Trailer Parking/Container Storage Area Weekly Inspections table", • Attachment 2 – replaced "TRUPACT III" with CH packages in the "Trailer Parking Area Checks" lists • Attachment 6 – changed title to now read as "Surface TP III Room 108 TRU Mixed Waste Handling Preoperational Area Inspection" • Attachment 7 – Added a Bolting Station row in the checklist.
20	04/02/14	• Updated References table. • Added statement to bullets in the Precautions and Limitations Section, attachment 2, and attachment 3 regarding storage requirements of waste containers. • Added filters on attachment 4 for annual inspections.
21	04/15/14	• Added "Daily" to titles of sections 1.0, 3.0 and 6.0, and attachments 1, 3 and 6. • Updated References table. • Specified in Precautions and Limitations, third bullet, that total waste volume in CH Bay Storage Area is not to exceed 135.9 m^3 TRU mixed waste. • Specified in Precautions and Limitations, fourth bullet, precise quantities of CH waste allowed, as opposed to number of pallets allowed, in CH Bay. • Specified in steps 1.1, 3.2, and 6.1 that inspections occur prior to use, daily, and on last day of work week.

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
22	05/02/14	• Added to the Introduction, that procedure provides direction for tracking Waste Volume and PE-Ci levels for stored waste and updated records list. • Deleted Attachment 3, CH Bay Storage Area Preoperational/Daily or Weekly Inspections. • Added Attachment 7, Waste Volume and PE-Ci Tracking Checklist. • Added to Precautions and Limitations bullet on TRUPACT-IIs that total volume for CH Bay must be included. • Deleted from Precautions and Limitations bullet on TP-III or SLB2 in CH areas of WHB. • Added Note above step 1.1 on inspecting areas used for storage daily as well as weekly as long as waste containers remain in the area. • Deleted Section 3.0, CH Bay Storage Area Preoperational/Daily or Weekly Inspection. • Added Section 7.0, Waste Volume and PE-Ci Tracking. • Added to attachments 1 and 6 "Daily" to title of table. • Added to attachments 1 and 2 a table entry on CH Surge Storage Area.

INTRODUCTION [1, 2]

This procedure provides directions for performing inspections of Surface Contact-Handled (CH) Transuranic (TRU) Mixed Waste Handling and Storage areas. This procedure also provides direction for tracking waste volume and PE-Ci levels for stored waste.

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, Surface CH TRU Mixed Waste Handling Area Preoperational or Daily Inspection
- Attachment 2, Trailer Parking Area and CH Container Storage Area Weekly Inspection
- Attachment 3, TRU Mixed Waste Decontamination Equipment Annual Inspection
- Attachment 4, TP-II Preoperational Waste Handling Mode Checklist
- Attachment 5, Surface Room 108 TRU Mixed Waste Handling Area Preoperational or Daily Inspection
- Attachment 6, TP III-Preoperational Waste Handling Mode Checklist
- Attachment 7, Waste Volume and PE-Ci Tracking Checklist

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
Title 40 *Code of Federal Regulations* (CFR) §264.15, "General Inspection Requirements"	✓		1
40 CFR Part 761, Subpart C, "Marking of PCBs and PCB Items"	✓		
40 CFR Part 761, Subpart D, "Storage and Disposal"	✓		
Administrative Order under the New Mexico Hazardous Waste Act § 74-4-13	✓		
Hazardous Waste Facility Permit, EPA Identification Number NM4890139088-TSDF	✓		2
DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*	✓		

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
DOE/WIPP-07-3373, *Waste Isolation Pilot Plant Technical Safety Requirements*	✓		
WP 04-AD3001, *Facility Mode Compliance*	✓		
WP 15-GM1002, *Issues Management Processing of WIPP Forms*		✓	
WP 05-WH1011, *CH Waste Processing*		✓	
WP 05-WH1201, *TRUPACT-III Handler*		✓	
WP 05-WH1210, *TP-III Processing and Empty Shipment*		✓	
WP 10-2, *Maintenance Operations Instruction Manual*	✓		
EA04AD3001-2-0, *Facility TSR Administrative Controls Checklist CH Waste Handling Mode*		✓	
EA04AD3001-4-0, *Return to Storage, Disposal, or Standby Mode Upon Completion of Waste Handling*		✓	
EA15GM1002-1-0, *WIPP Form*		✓	

PRECAUTIONS AND LIMITATIONS

- Only personnel qualified as a CH Floor, Yard and Emplacement Technician/CH Waste Handling Technician/Engineer (FY&E/WHT/WHE) or trainees operating under direct supervision of a qualified CH FY&E/WHT/WHE are authorized to perform CH Waste Handling activities specified in this procedure.

- Waste containers shall not be stored in the Waste Handling Building (WHB) for longer than 60 days or as identified in Administrative Order(s) under the New Mexico Hazardous Waste Act 74-4-13.

- WHB Unit Storage Capacities:

  — Total waste volume in the CH Bay Storage Area is not to exceed 135.9 m^3 of TRU mixed waste, excluding dunnage containers. The number of actual pallets in use is not limited as long as to total volume of waste stored on pallets and in CH packages at the TRUDOCKs, with or without lids removed and payloads remaining in the TRUPACT or HalfPACT, does not exceed 135.9 m^3 of stored waste.

Description	Area	Maximum Capacity
CH Bay Storage Area	32,307ft^2 (3001 m^2)	4,800 ft^3 (135.9 m^3)
CH Bay Surge Storage Area	Included in CH Bay Storage Area	1,600 ft^3 (45.3 m^3)
Derived Waste Storage Area	Included in CH Bay Storage Area	66.3 ft^3 (1.88 m^3)
Total for CH Waste	32,307 ft^2 (3001 m^2)	6,466.3 ft^3 (183.1 m^3)

- The following restrictions apply at all times in the CH Bay:
  - Only 9.0 m^3 of CH waste may be in the shielded storage room (must be included in total volume for CH Bay [135.9 m^3]).
  - TRUPACT-IIs or HalfPACTs loaded with CH waste may be stored at a TRUDOCK location. (must be included in total volume for CH Bay [135.9 m^3])
- Designated CH Waste Storage Areas in the Waste Handling Building (WHB), (per the Hazardous Waste Facility Permit) are the CH Bay Storage Area, Shielded Storage Room, Surge Storage Area, and the Derived Waste Storage Area, (as applicable).

- Parking Area Unit (PAU) Storage Capacities:

PAU STORAGE AREA

Maximum Number of TRUPACTs & HalfPACTs	Maximum Number of TRUPACT-IIIs	Maximum Number of RH-72B Casks
40	0	8
39	1	8
37	2	8
35	3	8
34	4	8
32	5	8
31	6	8

PAU SURGE STORAGE AREA

Maximum Number of TRUPACTs & HalfPACTs	Maximum Number of TRUPACT-IIIs	Maximum Number of RH-72B Casks
12	0	4
10	1	4
9	2	4
7	3	4
5	4	4
4	5	4
2	6	4

PREREQUISITE ACTIONS

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

2.0 If required inspection goes delinquent, perform the following:

2.1 Immediately notify the Facility Shift Manager (FSM) and Site Environmental Compliance (SEC) of delinquent inspection.

2.2 Schedule and complete inspection.

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

- The schedule for inspection

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

2.4 WHE, **GO TO** WP 15-GM1002 and initiate a WIPP Form, EA15GM1002-1-0.

NOTE

This procedure is written in sections and may be executed on a section by section basis, as specified by the crew manager.

PERFORMANCE

NOTE

Areas used for storage **MUST** be inspected prior to use, daily, as well as weekly thereafter, as long as waste containers remain in the area.

1.0 SURFACE CH TRU MIXED WASTE HANDLING AREA PREOPERATIONAL OR DAILY INSPECTION (ATTACHMENT 1)

1.1 **IF** waste is scheduled to be handled and/or is stored in CH TRU Mixed Waste Handling Area(s),
THEN inspect applicable areas prior to use, and daily, per attachment 1 and perform the following:

1.1.1 Enter date and time of inspection in appropriate blocks.

NOTE

Steps 1.1.2 and 1.1.4 may be done concurrently.

1.1.2 Inspect applicable items/conditions listed on attachment 1 and enter ✓ for satisfactory items/conditions, **U** for any unsatisfactory items/conditions, and **N/A** for not applicable.

1.1.3 Enter initials in block provided.

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

- Describe approximate location and nature of deficiency in Remarks section.

- Notify WHE.
- Initiate and record ARs for corrective action, as applicable.

1.1.5 Inspector, print name, sign, and enter initials when inspection is completed.

1.1.6 Submit inspection sheet to reviewer upon completion of Preoperational Inspection.

1.1.7 Reviewer, proceed to section 8.0.

2.0 TRAILER PARKING AREA AND CH CONTAINER STORAGE AREA WEEKLY INSPECTION (ATTACHMENT 2)

NOTE

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

2.1 **IF** waste is stored in Trailer Parking, CH Bay Container, CH-Derived, Room 108, Shielded StorageRoom and/or Surge Storage areas, **THEN** at least once every seven (7) days or per WHM direction, inspect applicable areas per attachment 2 and perform the following:

2.1.1 Enter date and time of inspection in appropriate blocks.

2.1.2 Inspect the applicable items/conditions listed on attachment 2 and enter ✓ for satisfactory items/conditions, **U** for any unsatisfactory items/conditions, **N/A** for not applicable.

2.1.3 Enter initials in block provided.

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

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

2.1.5 If asphalt/concrete parking areas where CH Packages are temporarily stored is **NOT** in good condition, move package(s) to another location.

2.1.6 Inspector, print name, sign, and enter initials when inspection is completed.

2.1.7 Submit inspection sheet to reviewer upon completion of Weekly Inspection.

2.1.8 Reviewer, proceed to section 8.0.

3.0 TRU MIXED WASTE DECONTAMINATION EQUIPMENT ANNUAL INSPECTION (ATTACHMENT 3)

NOTE

TRU Mixed Waste Decontamination Equipment Inspection may be performed more frequently at the request of the FSM.

3.1 Perform Annual Inspection during last work week in December per attachment 3, and document as follows:

3.1.1 Enter date and time of inspection in appropriate blocks.

3.1.2 Inspect applicable items/conditions on attachment 3 and enter ✓ for satisfactory, **U** for unsatisfactory, or **N/A** for not applicable in appropriate block.

3.1.3 Enter initials in block provided.

3.1.4 **IF** inventory check is **NOT** satisfactory,
THEN perform the following:

- Describe type and quantity of equipment not available.
- Notify WHE.
- Initiate and record Purchase Requisition for equipment replacement (if applicable).

3.1.5 Inspector, print name, sign, and enter initials when inspection is completed.

3.1.6 Submit inspection sheet to reviewer upon completion of Annual Inspection.

3.1.7 Reviewer, proceed to section 8.0.

4.0 TP II PREOPERATIONAL WASTE HANDLING MODE CHECKLIST (ATTACHMENT 4)

4.1 Operator, after equipment preoperational checks are completed, perform the following:

4.1.1 Ensure date has been entered.

4.1.2 Enter applicable information (Initials/OOS/N/A, etc) in applicable block.

4.1.3 Performer, enter printed name, signature, and initials on attachment 4 when preoperational checks are completed.

4.1.4 After all applicable blocks are completed; notify surface WHE for mode (surface CH Bay and/or shaft access area (SAA) WH).

4.1.5 WHE, complete applicable block of EA04AD3001-2-0, and deliver to Central Monitoring Room Operator (CMRO), either by hand or fax Initial block(s) and enter time.

4.1.6 WHE, upon completion of Surface CH Bay and/or SAA Waste Handling activities for shift, complete applicable block of EA04AD3001-4-0, for appropriate mode being requested, and deliver to CMRO, either by hand or fax.

4.1.7 Upon completion of last TP II preoperational mode checklist, forward attachment 4 to WHE for validation.

5.0 SURFACE Room 108 TRU MIXED WASTE HANDLING AREA PREOPERATIONAL OR DAILY INSPECTION (ATTACHMENT 5)

5.1 **IF** waste is scheduled to be handled and/or stored in Room 108 TRU Mixed Waste Handling Area(s),
THEN inspect applicable areas prior to use, daily, and on last day of work week per attachment 5 and perform the following:

5.1.1 Enter date and time of inspection in appropriate blocks.

NOTE

Steps 5.1.2 and 5.1.4 may be done concurrently.

5.1.2 Inspect applicable items/conditions listed on attachment 5 and enter ✓ for satisfactory items/conditions, **U** for any unsatisfactory items/conditions, and **N/A** for not applicable.

5.1.3 Enter initials in block provided.

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

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

5.1.5 Inspector, print name, sign, and enter initials when inspection is completed.

5.1.6 Submit inspection sheet to reviewer upon completion of Preoperational Inspection.

5.1.7 Reviewer, proceed to section 8.0.

6.0 TP-III PREOPERATIONAL WASTE HANDLING MODE CHECKLIST (ATTACHMENT 6)

6.1 Operator, after equipment preoperational checks are successfully completed, perform the following:

6.1.1 Ensure date has been entered.

6.1.2 Enter applicable information (Initials/OOS/N/A, etc.) in applicable blocks.

6.1.3 Performer, enter printed name, signature, and initials on attachment 6 when preoperational checks are completed.

6.1.4 After all applicable blocks are completed; notify surface WHE for mode (surface CH Room 108 WH).

6.1.5 WHE, complete applicable block of EA04AD3001-2-0, and deliver to CMRO, either by hand or fax. Initial block and enter time.

6.1.6 WHE, upon completion of Surface CH Waste Handling Room 108 activities for shift, complete applicable block of EA04AD3001-4-0 for appropriate mode being requested and deliver to CMRO, either by hand or fax.

6.1.7 Upon completion of last TP-III CH preoperational waste handling mode checklist, forward attachment 6 to WHE for validation.

7.0 WASTE VOLUME AND PE-Ci TRACKING (ATTACHMENT 7)[2]

CAUTION

When **ALL** blocks and/or rows on Waste Volume and PE-Ci Tracking Checklist (Attachment 7), for each applicable storage area, are completed, additional containers **SHALL NOT** be introduced into that storage area. Total volume of 183.1 m^3 and/or 40,000 PE-Ci **SHALL NOT** be exceeded.

NOTE

For Container type, Volume, and PE-Ci Limit Values to be used for Site-Derived Waste brought into the CH Bay, refer to the Reference Guide in attachment 7.

7.1 Ensure pre-operational inspections for applicable WH areas and equipment have been performed.

7.2 WHE, ensure that total Stored Waste Volume for the following areas are not exceeded:

- CH Bay 135.9 m^3
- Surge Storage Area 45.3 m^3
- Site Derived Storage Area 1.88 m^3

7.3 WH, (when authorized by WHE to introduce a new container into the CH Bay), inform WHE of container ID number as it is introduced into the WHB,

7.4 WH, update Waste Volume and PE-Ci Tracking Checklist (attachment 7), on next available row, with the following:

7.4.1 Enter initials and date when container was introduced into CH bay, on Initial/Date block for applicable storage area.

7.4.2 Enter container ID number in Container ID block.

7.4.3 If a Site Derived SWB is brought in not sealed, it shall be temporarily stored in the Site Derived Storage Area and not recorded on attachment 7 until ready for permanent storage.

7.5 Performer, enter printed name, signature, and initials on attachment 7.

8.0 REVIEW

8.1 Review attachments for unsatisfactory conditions, corrective actions taken, and outstanding or newly generated ARs.

8.2 Enter initials in block provided for specific inspection.

8.3 Reviewer, print name, sign, and enter initials when review is completed.

9.0 VALIDATION

9.1 WHE, perform following:

9.1.1 Upon completion of last inspection to be documented on attachments 1 through 7, verify correctness of form. Validate inspection(s) by printing name, signing, and dating inspection sheets in spaces provided.

9.1.2 Review attachments 1 through 7 weekly, and forward completed attachments to Records Coordinator.

Attachment 1 – Surface CH TRU Mixed Waste Handling Area Preoperational or Daily Inspection

AREA/EQUIPMENT PREOPERATIONAL OR DAILY INSPECTIONS								
	DATE							
	TIME							
East TRUDOCK	✓/U*							
No Combustible Materials Stored Underneath the East TRUDOCK	✓/U*							
West TRUDOCK	✓/U*							
No Combustible Materials Stored Underneath the West TRUDOCK	✓/U*							
Facility Pallets	✓/U*							
East TRUDOCK Storage Areas	✓/U*							
West TRUDOCK Storage Areas	✓/U*							
CH Bay Container Storage Area	✓/U*							
CH Surge Storage Area	✓/U*							
Shielded Room Storage Area	✓/U*							
CH-Derived Waste Storage Area	✓/U*							
Conveyance Loading Room (if applicable)	✓/U*							
INSPECTOR INITIALS	xxxxx							
REVIEWER INITIALS	xxxxx							

* ✓ = Satisfactory **U** = Unsatisfactory **N/A** = Not Applicable

TRUDOCK/Facility Pallet Checks:

- Structural fatigue, deformation, wear (obvious cracks, bends or breaks), rust
- Loose or deformed decking
- Missing hardware such as nuts and bolts

Storage Area Checks:

- Floor coating in good condition - at least one layer intact, and no bubbles in coating
- Concrete floor in good condition - free of cracks and gaps
- No evidence of spills or leaks from waste containers
- 44 - inch minimum aisle space between facility pallets loaded with CH waste
- Containers in good condition/no visible deterioration
- Area free of debris and refuse
- Warning signs posted in area
- Telephone/Internal Communications - proper working order
- Waste containers elevated ≥ 6 inches above floor
- Polychlorinated biphenyl (PCB) warning signs posted on all entrances into CH Bay and radiological areas
- Storage capacities consistent with those identified in Precautions and Limitations

Conveyance Loading Room Checks:

- Area free of debris and refuse
- Warning signs posted in area
- PCB warning signs posted on all entrances into Conveyance Loading Room
- Telephone/Internal Communications - proper working order

Attachment 1 – Surface CH TRU Mixed Waste Handling Area Preoperational or Daily Inspection

Inspector Name (print) **Signature** **Initials**

REMARKS:

VALIDATION:
WHE Name (print) **Signature** **Date**

Attachment 2 – Trailer Parking Area and CH Container Storage Area Weekly Inspection

TRAILER PARKING/CONTAINER STORAGE AREA WEEKLY INSPECTIONS						
	DATE					
	TIME					
Trailer Parking Area	✓/U*					
East TRUDOCK Storage Areas	✓/U*					
West TRUDOCK Storage Areas	✓/U*					
CH Bay Container Storage Area	✓/U*					
CH-Derived Waste Storage Area	✓/U*					
CH Surge Storage Area	✓/U*					
Shielded Room Storage Area	✓/U*					
Room 108	✓/U*					
INSPECTOR INITIALS	xxxxx					
REVIEWER INITIALS	xxxxx					

* ✓ = Satisfactory **U** = Unsatisfactory **N/A** = Not Applicable

Trailer Parking Area Checks:

- Warning signs posted in area
- PCB warning signs posted on Controlled Area surrounding building 411 and 412
- Asphalt/concrete parking areas free from cracks/gaps that could create hazard to forklift operation
- Minimum 4-foot aisle space between trailers with CH Packages/Road Cask(s) loaded with CH/RH waste
- CH Packages and Road Cask(s) in good condition/no visible deterioration
- No evidence of spills or leaks from CH packages or Road Cask(s)

Storage Area Checks:

- Floor coating in good condition - at least one layer intact, and no bubbles in coating
- Concrete floor in good condition - free of cracks and gaps
- No evidence of spills or leaks from waste containers
- 44 - inch minimum aisle space between facility pallets loaded with CH waste
- Containers in good condition/no visible deterioration
- Area free of debris and refuse
- Warning signs posted in area
- PCB warning signs posted on all entrances to CH Bay Room 108 and radiological areas
- Telephone/Internal Communications - proper working order
- Verify first date, on WP 05-WH1011 attachment 1 and WP 05-WH1210 attachment 1, for all payloads does not exceed 60 calendar days or as identified in Administrative Order(s) under the New Mexico Hazardous Waste Act 74-4-13
- Waste containers elevated ≥ 6 inches above floor

Storage capacities consistent with those identified in Precautions and Limitations

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Inspector Name (print) **Signature** **Initials**

Attachment 2 – Trailer Parking Area and CH Container Storage Area Weekly Inspection

REMARKS: _____

VALIDATION: _____
WHE Name (print) **Signature** **Date**

Attachment 3 – TRU Mixed Waste Decontamination Equipment Annual Inspection

TRU MIXED WASTE DECONTAMINATION EQUIPMENT ANNUAL INSPECTIONS							
Equipment	Quantities	DATE					
		TIME					
85-gallon drums	14	✓/U*					
SWBs	4	✓/U*					
HEPA Filtered Vacuum	2	✓/U*					
Aquaset or Cement	100 lb	✓/U*					
Polyvinyl Alcohol	1-5 gallon bucket	✓/U*					
Nonhazardous Decontaminating Agent	4-1 gallon bottles	✓/U*					
Filters (NFT-013)	25	✓/U*					
Inspector Initials	xxxxxx	xxxxx					
Reviewer Initials	xxxxxx	xxxxx					

* ✓ = Satisfactory **U** = Unsatisfactory **N/A** = Not Applicable

- Equipment Inventory Check

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_____

Inspector Name (print) **Signature** **Initials**

REMARKS: _____

_____

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VALIDATION: _____

WHE Name (print) **Signature** **Date**

Attachment 4 – TP-II Preoperational Waste Handling Mode Checklist

PREOPERATIONAL SURFACE WASTE HANDLING MODE CHECKLIST					
Date					
EAST TRUDOCK 41-T-153					
Crane 41-T-151A & ACGLF					
Crane 41-T-151C & ACGLF					
WEST TRUDOCK 41-T-152					
Crane 41-T-151B & ACGLF					
Crane 41-T-151D & ACGLF					
13 Ton Forklifts: 41-H-012A					
41-H-012B					
41-H-012C					
41-H-012D					
41-H-012E					
6 Ton Forklift *74-H-010B					
3 Ton Forklift *41-H-009					
Trailer Jockeys: * 41-H-030					
41-H-046					
41-H-151A					
41-H-151B					
Conveyance Loading Car 41-H-018 **					
Surface Area Inspection					
Delivered EA04AD3001-2-0 to CMRO requesting CH Waste Handling Operations(CH Bay) Initials / Time					
Delivered EA04AD3001-2-0 to CMRO requesting CH Waste Handling Operations (Shaft Access Area) Initials / Time					

N/A = Not applicable OOS = Out of Service * = Not required for mode ** = Needed for downloading

Remarks:

_____

_____

Attachment 4 – TP-II Preoperational Waste Handling Mode Checklist

Performers enter:			Performers enter:		
Printed Name	Signature	Initials	Printed Name	Signature	Initials

WHE Validation _____ / _____ / _____
Printed Name Signature Date

Attachment 5 – Surface Room 108 TRU Mixed Waste Handling Preoperational or Daily Area Inspection

AREA/EQUIPMENT PREOPERATIONAL OR DAILY INSPECTIONS								
	DATE							
	TIME							
Bolting Station	✓/U*							
No Combustible Materials Stored at the Bolting Station	✓/U*							
Payload Transfer Station	✓/U*							
No Combustible Materials Stored at the Payload Transfer Station	✓/U*							
Facility Pallets	✓/U*							
Door #117 Security Seal Intact	✓/U*							
INSPECTOR INITIALS	XXXXX							
REVIEWER INITIALS	XXXXX							

* ✓ = Satisfactory **U** = Unsatisfactory **N/A** = Not Applicable

Bolting Station/Facility Pallet/Payload Transfer Station Checks:

- Structural fatigue, deformation, wear (obvious cracks, bends or breaks), rust
- Loose or deformed decking
- Missing hardware such as nuts and bolts

Storage Area Checks:

- Floor coating in good conditions – at least one layer intact, and no bubbles in coating
- Concrete floor in good condition – free of cracks and gaps
- No evidence of spills or leaks from waste containers
- 44 – inch minimum aisle space between facility pallets loaded with CH waste
- Containers in good condition/no visible deterioration
- Area free of debris and refuse
- Warning signs posted in area
- Telephone/Internal Communications – proper working order
- Waste containers elevated ≥6 inches above floor
- Polychlorinated biphenyl (PCB) warning signs posted on all entrances into Room 108 and radiological areas

REMARKS: _____

Attachment 5 – Surface Room 108 TRU Mixed Waste Handling Area Preoperational or Daily Inspection

Performers enter:			Performers enter:		
Printed Name	Signature	Initials	Printed Name	Signature	Initials

WHE Validation _____ / _____ / _____
Printed Name Signature Date

Attachment 6 –TP-III Preoperational Waste Handling Mode Checklist

PREOPERATIONAL SURFACE TRUPACT-III WASTE HANDLING MODE CHECKLIST					
Date					
TP-III Handler (35 Ton Forklift) 41-H-051					
Bolting Robot 41-Z-040					
Bolting Station					
Payload Transfer Station 41-Z-041					
Pallet Dispensing Unit 41-Z-042					
Monorail Hoist 41-H-027					
Facility Transfer Vehicle: 41-H-020A					
41-H-020B					
41-H-020C					
WAVE Man lift: 41-W-095A					
41-W-095B					
Yard Transfer Vehicle: 41-H-021A					
41-H-021B					
Surface Area Inspection – Room 108					
Delivered EA04AD3001-2-0 to CMRO requesting CH Waste Handling Operations (Room 108) Initials / Time					

Attachment 6 –TP-III Preoperational Waste Handling Mode Checklist

Inspector Name (print) **Signature** **Initials**

REMARKS:

VALIDATION:
WHE Name (print) **Signature** **Date**

Attachment 7 – Waste Volume and PE Ci Tracking Checklist

Waste Volume and PE-Ci Tracking

Waste Volumes and PE-Ci Levels, As Of 3/27/14			
CH Bay	volume of 110.41 m^3	1,378.733 PE-Ci	**Not to Exceed: 135.9 m^3**
Surge Storage Area	volume of 36.34 m^3	532.211 PE-Ci	**Not to Exceed: 45.3 m^3**
Site Derived Storage Area	Currently no waste stored		**Not to Exceed: 1.88 m^3**
Totals not to exceed		**40,000 PE-Ci**	**Volume Limit of 183 m^3**

Track CH Bay waste volumes and PE-Ci levels			
Initial Waste Volume/PE-Ci Level, 3/27/14		volume of 110.41 m^3	1,378.733 PE-Ci
INITIALS/DATE	**CONTAINER ID NUMBER**	**STORED WASTE VOLUME (SWB Volume = 1.88 m^3)**	**PE-Ci LEVEL (SWB = 560 PE-Ci)**
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
Total waste volume and PE-Ci level			

Track Surge Storage Area waste volumes and PE-Ci levels			
Initial Waste Volume/PE-Ci Level, 3/27/14		volume of 36.34 m^3	532.211 PE-Ci
INITIALS/DATE	**CONTAINER NUMBER**	**STORED WASTE VOLUME (SWB Volume = 1.88 m^3)**	**PE-Ci LEVEL (SWB = 560 PE-Ci)**
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
	SWB #	1.88 m^3	560 PE-Ci
Total waste volume and PE-Ci level			

Track Site Derived Storage Area waste volume and PE-Ci level			
Initial Waste Volume/PE-Ci Level, 3/27/14		volume of 0 m^3	0 PE-Ci
INITIALS/DATE	**CONTAINER NUMBER**	**STORED WASTE VOLUME (SWB Volume = 1.88 m^3)**	**PE-Ci LEVEL (SWB = 560 PE-Ci)**
	SWB #	1.88 m^3	560 PE-Ci
Total waste volume and PE-Ci level			

Attachment 7 – Waste Volume and PE Ci Tracking Checklist

Container Type, Volume and PE-Ci Limit Reference Guide

Container Type	Container Volume	PE-Ci Limit
55 Gallon Drum	0.21 m^3	80 PE-Ci
85 Gallon Drum	0.32 m^3	80 PE-Ci
100 Gallon Drum	0.38 m^3	80 PE-Ci
Standard Waste Box (SWB)	1.88 m^3	560 PE-Ci
Ten Drum Over Pack (TDOP)	4.5 m^3	100 PE-Ci (direct load) 1,200 PE-Ci (overpack)
Standard Large Box 2 (SLB2)	7.39 m^3	560 PE-Ci

Performer's Name (print) **Signature** **Initials**

REMARKS:

VALIDATION:

WHE Name (print) **Signature** **Date**