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CP3-WM-3015 FRev. 1C	TITLE: Waste Packaging	Page 1 of 41

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REVISION/CHANGE LOG

Revision/Change Letter	Description of Changes	Pages Affected	Date of Revision/Change
FR0	Procedure bluesheet.	All	10/19/17
FR1	Initial Release	All	1/8/18
FR1A	Make minor changes to address Issues CA-000320, CA-000743, CA-000772, and CA-000697 AI-0001209. Add CP2-SS-3000 and CP3-NM-3007 as Use References. Add Steps 5.4, 6.3.1, and 6.3.22. Added clarification to 6.2.22.	3, 6,10-11, 13, 19, 41	5/17/18
FR1B	Add clarification to Form Instructions for CP3-WM-3015-F01, Step D2.	31	6/21/18
FR1C	CA-001683, AI-0002398 - Revise to add Step 6.2.18 for FLS to provide documentation to MBA Custodian on repackaging accountable material.	10	3/7/19

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides requirements and a sequence of steps to follow in order to oversee, direct, and perform packaging of waste containers for on-site (C-746-U Landfill) and off-site [commercial treatment, storage, and disposal facility (TSDF)] disposition. In addition to the requirements of this procedure, if packaging waste to be disposed of at Nevada National Security Site (NNSS), follow CP3-WM-0707, *NNSS Specific Waste Characterization, Profiling, Packaging and Shipping* for additional specific waste packaging requirements.

This procedure also provides direction for container preparation for transportation to the C-746-U landfill and all offsite TSDFs.

1.2 Scope

The requirements of this procedure apply to packaging of the following types of wastes performed by Four Rivers Nuclear Partnership, LLC personnel, subcontractors, and other contractors as required by management to support Waste Management activities for the U.S. Department of Energy (DOE) at the Paducah DOE Site:

- Low-Level radioactive waste (LLW)
- Hazardous Waste (HW)
- Mixed Low-Level Waste (MLLW)
- Toxic Substance Control Act (TSCA)
- TSCS-Radioactive Waste
- DOE Classified Waste
- Regulated Asbestos Low-Level Waste (RALLW)
- Non-Hazardous Solid Waste
- Waste Water

2.0 REFERENCES

2.1 Use References

- 10 *Code of Federal Regulations (CFR)* 835, *Occupational Radiation Protection*
- 40 *CFR, Protection of Environment*
- 49 *CFR, Transportation*: Part 173.403
- 401 *Kentucky Administrative Regulations* (*KAR)* 48:090, *Operating requirements for contained landfills*
- CP2-SS-3000, *Nuclear Materials Control and Accountability Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* Chg A
- CP2-WM-0661, *Transportation Safety Document for On-Site Transport*
- CP2-WM-0011, *Waste Acceptance Criteria for the Treatment, Storage and Disposal Facilities at the Paducah U.S. Department of Energy Site*
- CP3-NM-3002, *Intraplant Shipments and Receipts* Chg A
- CP3-NM-3007, *Managing and Documenting Termination of Safeguards (TOS) Nuclear Materials*
- CP3-QA-2004, *Material Receipt Inspection*
- CP3-QA-2005, *Nonconformance Control*

- CP3-QA-2500, *Procurement, Inspection and Management of Items Critical for Paducah Off-Site Waste Shipments*
- CP3-RP-1105, *Receipt, Transport, and Movement of Radioactive Materials*
- CP3-WM-0015, *Management of Fissile Materials*
- CP3-WM-0437, *Waste Characterization and Profiling*
- CP3-WM-0707, *NNSS Specific Waste Characterization, Profiling, Packaging and Shipping*
- CP3-WM-1036, *Nuclear Criticality Safety Implementation Requirements for Handling and Storage of Fissile and Potentially Fissile Waste*
- CP3-WM-1037, *Generation and Temporary Storage of Waste Materials*
- CP3-WM-3022, *Access Control Requirements for the C-746-Q Hazardous and Low-Level Waste Storage Facility*
- CP3-WM-3025, *Preparation and Processing of Paducah Landfill Packages*
- CP3-WM-3028, *Off-Site Shipping*
- NCSE-RM-FISSMAT-0015R1, *Transportation and Storage of Fissionable Materials for Waste Projects*

2.2 Source References

- 40 *CFR* 261-268
- 40 *CFR* 262 *Subpart C, Pre-Transport Requirements; Solid Waste Landfill Permit* (SW07300015,014,045)
- 40 *CFR* 761 *Subpart C, Marking of PCBs and PCB Items and Subpart D, Storage and Disposal*
- 49 *CFR, Transportation*: Parts 171,172,174 and 177
- 49 CFR 173.453, Fissile Material – Exceptions
- CP1-NS-3001, *Technical Safety Requirements for the Department of Energy Paducah Site Deactivation Project*, Section 3
- CP2-SM-1000, *Activity Level Work Planning and Control Program. Fluor Federal Services Inc., Paducah Deactivation Project*
- CP2-WM-0661, *Transportation Safety for On-site Transport Within the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP3-QA-2501, *Waste Certification*
- CP3-SM-0051, *Hoisting and Rigging*
- CP3-SM-1101, *Activity Level Work Request, Planning, Scheduling and Release*
- CP3-SM-1102, *Activity Level Work Execution and Closeout*
- CP2-WM-0006, *Facility Safety Basis Inventory Control Plan for Paducah Waste Storage Facilities*
- CP3-WM-0016, *Waste Handling and Storage in DOE Waste Storage Facilities*
- CP3-WM-2110, *Waste Container Handling, Overpacking, and Transportation*
- CP3-WM-3022, *Access Control Requirements for the Paducah C-746-Q Hazardous and Low-Level Waste Storage Facility*
- CP3-WM-0017, *Standard Operations for the C-746-S, T, and U Landfills*
- CP4-WM-0019, *On-Site Transfer and Movement of Waste Containers and Other Support Equipment*
- DOE M 435.1-1, Chg.2, *Radioactive Waste Management Manual*
- DOE O 435.1, Chg.1, *Radioactive Waste Management*

- Hazardous Waste Facility Permit (KY8-890-008-982)
- JHA-11420, *Waste Management - Routine Work Activities*
- JHA-8692, *Waste Management General*
- Nevada Administrative Code (NAC) 444.9452

3.0 COMMITMENTS

CP1-NS-3001, Technical Safety Requirements for the Department of Energy Paducah Site Deactivation Project, Section 3

4.0 PRECAUTIONS AND LIMITATIONS

4.1 Precautions

In addition to the requirements of this procedure, there are two procedures governing the handling and storage of fissile or potentially fissile waste depending on the applicable Nuclear Criticality Safety Evaluation (NCSE). The handling requirements of CP3-WM-0015, *Management of Fissile Waste Material,* apply to waste controlled by NCSE-RM-FISSMAT-0015. CP3−WM−1036, *Nuclear Criticality Safety Implementation Requirements for Handling and Storage of Fissile and Potentially Fissile Waste,* applies to all other fissile or potentially fissile waste. The appropriate NCS requirements shall be met prior to transferring fissile or potentially fissile waste from one NCSE to another.

4.2 Limitations

4.2.1 For waste to be disposed of at a Commercial TSDF:

- Items prohibited by the designated TSDFs Waste Acceptance Criteria (WAC) shall not be included in waste packages.
- Weight limits of specific containers (pay load) and packages shall not be exceeded.

4.2.2 For Waste to be disposed at the C-746-U landfill:

- Waste stream shall not exceed the Authorized Limits for the C-746-U Landfill.
- Weight limits of specific containers (pay load) and packages shall not be exceeded.
- Disposal of waste containing free liquids is prohibited.
- Gross weight of packages shall not exceed 120,000 lbs.
- All waste entering the C-746-U Landfill must be approved in accordance with CP2-WM-0011, *Waste Acceptance Criteria for the Treatment, Storage, and Disposal Facilities at the Paducah DOE Site.* The waste must be as described in the applicable landfill packages with all documentation completed in accordance with CP3-WM-3025, *Preparation and Processing of Paducah Landfill Packages.*

Steps 4.2.3 through **4.2.6** pertain to all waste packaging.

4.2.3 **DO NOT** locate any part of the body under a suspended load. (A waste container resting on engineered stands is not “suspended” since it is not being supported by hoisting and rigging equipment.)

4.2.4 **DO NOT** package incompatible wastes in the same container. Waste must be compatible with the container and packaging materials.

4.2.5 Radiologically contaminated waste cannot be processed as universal/recyclable waste unless it is free-released by Radiological Control.

4.2.6 **DO NOT** preserve radioactive animal carcasses with formaldehyde.

4.2.7 Waste generators may package, repackage and overpack waste in accordance with this procedure. Waste is subject to be repackaged for content verification by Waste Management at the cost of the waste generator at the discretion of the Waste, Materials, and Environmental Services Director, Waste Facilities Operations Manager, or Waste Engineer.

5.0 PREREQUISITES

5.1 Fissile material workers managing fissile/potentially fissile waste shall be trained on fissile material handling operations according to CP3-WM-0015, *Management of Fissile Waste Material* (Attachment B, Training) and with Training Position Description.

5.2 All personnel entering the C-746-Q facility shall be trained in procedure CP3-WM-3022, *Access Control Requirements for the Paducah C-746-Q Hazardous and Low-Level Waste Storage Facility* or shall be escorted by someone who is trained, to properly respond to facility-specific emergency actions and to notify the Plant Shift Superintendent in the event of an accident.

5.3 <TSR CP1-NS-3001, Section 5.5.2.13> A process shall be in place to ensure that fissile material workers and supervisors managing fissile/potentially fissile waste in areas controlled by the Safety Basis are trained on fissile material handling operations.

5.4 All accountable Nuclear Material Control and Accountability (NMC&A) material will be managed in the appropriate material balance area (MBA) according to CP2-SS-3000, *Nuclear Materials Control and* Accountability *Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* and CP3-NM-3007, *Managing and Documenting Termination of Safeguards Nuclear Materials.* Chg A

5.5 All NMC&A accountable material will be transferred and moved in the appropriate MBA according to CP3-NM-3002, *Intraplant Shipments and Receipts.*

6.0 INSTRUCTIONS

6.1 Identifying Packaging Requirements

Waste Engineer

6.1.1 **IF** packaging waste to be disposed of at the NNSS, **THEN** FOLLOW the additional specific NNSS requirements for characterization and packaging in CP3-WM-0707, *NNSS Specific Waste Characterization, Profiling, Packaging and Shipping.*

6.1.2 COMPILE the following prior to performing waste packaging operations and provide to the Waste Generator:

- waste characterization information, including Process Knowledge, Sample data or a combination of both,
- applicable TSDF WAC, and
- profile information for waste stream.

NOTE:

Liners are recommended to be used when packaging Toxic Substances Control Act (TSCA) Waste into Bulk Containers that are to be reused.

Attachment B provides a logic diagram/decision flow path to aid in the determination to repackage or

over pack the waste.

6.1.3 DETERMINE the appropriate containers/liners/absorbents and other critical items required to package, repackage, or overpack the waste in accordance with the waste characterization, appropriate TSDF WAC, applicable regulations and/or CP2-WM-0661, *Transportation Safety Document for On-Site Transport* requirements (onsite shipments).

6.1.4 PROVIDE the information to the Waste Generator. Items to address for this purpose are the following:

- Specific Waste Inventory
- Waste Type
- Container Specifications and closure instructions
- Form CP3-WM-3015-F03, "Absorbent Determination" for waste stream

NOTE:

Used/legacy containers may be used as the shipping package (e.g. Legacy Waste) if evaluated and approved by the Waste Transportation Manager or Transportation Specialist and the waste is being routed to a TSDF other than the NNSS.

Security determination may be made on an area, building, location, specific system, or on a per container basis.

6.1.5 OBTAIN information pertaining to the presence/absence of Classified, Unclassified Controlled Nuclear Information, and/or Export Control Information Waste from Derivative Classifier (DC).

6.1.6 PROCURE containers, liners and absorbents in accordance with CP3-QA-2500, *Procurement, Inspection, and Management of Items Critical for Paducah Off-site Waste Shipments*.

Quality Assurance (QA) Specialist

NOTE:

Documented receipt or pre-service inspections are not required for containers not intended for transport off-site. These type of containers (roll-offs, storage tanks, frac tanks, or other types of tanks, etc.) are visually inspected prior to use. Issues must be addressed by the Logistics Management Supervisor.

A pre-service inspection is acceptable to be performed for used/recyclable containers for off-site shipments to TSDFs other than NNSS.

For NNSS, a receipt inspection must be performed by QA prior to use/reuse of each container.

6.1.7 PERFORM a receipt inspection for empty waste containers in accordance with CP3-QA-2500.

6.1.8 PERFORM receipt inspections for absorbents, and container liners in accordance with CP3-QA-2004, *Material Receipt Inspection*.

Container Management

6.1.9 PERFORM pre-service inspections of used/recyclable containers, as applicable, according to CP3-QA-2500.

6.2 Package Waste

Action Steps (Perform steps sequentially unless otherwise noted.)

Radiological Control Technician (RCT)

NOTE:

Items contaminated on the surface only require RCT screening surveys. Volumetrically contaminated materials such as liquid, sludge, soil, wood, powder, ash, and UF4 do not require screening surveys. Surface Contaminated Objects (SCO) Objects that are not contaminated should be segregated for alternate disposition (i.e. C-746-U Landfill).

6.2.1 PERFORM radiological surveys of waste materials for SCO according to CP3-RP-1105, *Receipt, Transport, and Movement of Radioactive Materials* and as defined in 49 *CFR* 173.403 prior to packaging the waste materials.

Operator

NOTE:

Wastes are packaged by the operator/generator at the direction of the Project Frontline Supervisor (FLS) with guidance from the Waste Engineer/Field Engineer. Waste packaging may include activities such as sorting/segregating wastes, removing nonconforming items, performing risk assessment observations, or repackaging to meet TSDF requirements.

6.2.2 **IF** the waste contains fissile material, **THEN** FOLLOW Nuclear Criticality Safety (NCS) guidelines for handling any container in question.

WARNING

Opening of containers which might be pressurized can cause grave bodily harm.

6.2.3 FOLLOW manufacturer's instructions for opening and closing shipping containers as provided by Waste Engineer/Field Engineer.

Waste Engineer/Field Engineer

6.2.4 **IF** packaging waste for NNSS, **THEN** REFER to CP3-WM-0707, *NNSS Specific Waste characterization, Profiling, Packaging and Shipping* for specific requirements for NNSS waste packaging that are in addition to the requirements of this procedure.

6.2.5 **IF** establishing a collection container **THEN** REFER to CP3-WM-1037, *Generation and Temporary Storage of Waste Materials* for additional requirements.

NOTE:

Identification of non-conforming items or conditions shall be addressed in accordance with **Steps 6.2.9** through **6.2.11**.

6.2.6 **IF** a non-conforming item is identified and a mitigation path is available (i.e., Resource Conservation and Recovery Act [RCRA] collection container, absorbent determination, decanting, repairs, etc.), **THEN** CORRECT the non-conformance in accordance with the mitigation path.

6.2.7 **IF** a non-conforming item is identified and a mitigation path is NOT available, **THEN** SEGREGATE the item and DEVELOP **AND** DOCUMENT a mitigation approach.

6.2.8 **IF** a non-conforming shipping container and/or contents is identified, **THEN** ATTACH a "hold" tag and document on form QA-F-0075, "Nonconformance Report" in accordance with CP3-QA-2005, *Nonconformance Control*.

6.2.9 OBTAIN a documented receipt or pre-service (for non-NNSS waste) inspection for waste containers, absorbent and other critical items for off-site shipments.

6.2.10 PERFORM pre-use inspection of container and document on Form CP3-WM-3015-F01, "Waste Item Container Log" according to the instructions.

Operator/Waste Generator

6.2.11 ADD absorbent and install liner (if required) at the direction of the Project FLS with guidance from the Waste Engineer/Field Engineer.

Waste Generator

6.2.12 PERFORM container preparation inspection: verification of the addition of absorbent in accordance with CP3-WM-015-F03 and verification that a liner is installed in accordance with manufacturer's instructions (if provided and directed by Waste Engineer) and document on Waste Item Container Log (CP3-WM-3015-F01) according to the instructions.

Operator

6.2.13 MARK **AND** LABEL the containers according to CP2-WM-0011, immediately upon placement of wastes in a container.

Waste Generator/Waste Management personnel

NOTE:

Oversize Debris should be size reduced as much as practical to decrease disposition costs as oversize debris disposition costs are markedly more expensive.

Waste containing free liquids is not allowed at the C-746-U landfill.

Soils, sludges and sediments could hold liquid interstitially.

In process waste containers cannot be left unattended unless properly secured with temporary tamper indication device (TIDs) attached in accordance with **6.2.22** or other methods approved by the FLS.

6.2.14 **IF** the waste could have free liquids captured in the interstitial spaces within the waste mass and free liquids are prohibited by the TSDF or waste stream profile, **THEN** PERFORM a Paint Filter Liquids Test in accordance with **Section 6.6** on a representative sample of waste material.

Operator

6.2.15 At the direction of the Project FLS with guidance from the Waste Engineer/Field Engineer, LOAD containers efficiently by compacting waste material and filling to the maximum extent practical to minimize void space.

6.2.16 BLOCK and BRACE the waste inside the container, as directed by the Project FLS with guidance from the Waste Engineer/Field Engineer/Field Coordinator, to prevent shifting during transport.

Waste Generator

6.2.17 DOCUMENT a detailed description of the waste items placed in the container on CP3-WM-3015-F01, "Waste Item Container Log" for each container according to the instructions that accompany the form.

FLS

6.2.18 **If** repackaging accountable material, **then** provide MBA Custodian applicable information from the following list to ensure NMC&A paperwork is completed according to Section 6.1 of CP3-NM-3002:

- Weight of container (including gross weight, tare weight, scale ID, date weighed, and time weighed);
- Date material physically repackaged;
- Location from (original container numbers);
- Location to (resulting container numbers);
- Material Description (List project or document the original container origins);
- Container Number;
- Material type or item description code.

Chg C

RCT

NOTE:

Unshielded 3-meter radiological dose surveys can be performed for all containers of SCO and low specific activity (LSA) type materials or for representative containers per like waste stream as determined by the Waste Engineer.

6.2.19 PERFORM an unshielded 3-meter radiological dose survey in accordance with CP3-RP-1105 prior to closure of waste container for SCO and low specific activity shipments.

Operator

NOTE:

Step **6.2.20** and **6.2.21** are completed when waste container is full (not for in-process waste).

Welding the lid to the container is an acceptable method of intrusion-indication device (IID)/TID.

IID/TID installation may be exempted by Waste Engineer for non-NNSS shipments. **Steps 6.2.21 and 6.2.22** are not required for containers shipped as excepted packages to non-NNSS facilities. **Steps 6.2.20 through 6.2.22** do not have to be performed in sequence.

6.2.20 CLOSE the waste container in accordance with the manufacturer's instructions provided by the Waste Engineer/Field Engineer.

6.2.21 **IF** the manufacturer's closure instructions specify torque ratings for closure, **THEN** USE calibrated torque wrenches to close the container.

6.2.22 INSTALL IID/TID at the direction of the FLS with guidance from Waste Engineer/Field Engineer/Field Coordinator.

Waste Generator/Waste Management personnel

6.2.23 RECORD closure information (torque wrench number, TID numbers, etc.) on Form CP3-WM-3015-F01 for each container according to instructions. **If** multiple torque values are required by the manufacturer, **then** clearly differentiate each value per item torqued in G2 of CP3-WM-3015-F01. Chg A

RCT

6.2.24 **IF** the containers contain radioactive materials, **THEN** TAG the containers appropriately.

Operator/Truck Driver

6.2.25 WEIGH the container on a calibrated scale.

Waste Engineer/Field Engineer/FLS

NOTE:

Gross Weight – The weight of container, liner, absorbent, and waste materials. [Gross Weight = Net Weight + Tare Weight]

Net Weight – The weight of the waste material, liner and absorbent. Tare Weight – The weight of the container.

Gondola railcar weights are obtained by adding individual weights for boxes/cargo containers/scoops/buckets that were transferred into the gondola. Calibrated scales and/or load cells on equipment can be used to obtain the individual weights.

6.2.26 CHECK that the gross weight of the filled package does not exceed the pay load limits of the container or weight limits in the applicable TSDF WAC(s).

6.2.27 RECORD weights on Form CP3-WM-3015-F01 according to instructions.

Waste Engineer

6.2.28 REVIEW completed forms and verify that all waste is packaged, repackaged and/or overpacked in accordance with the appropriate TSDF WAC, and/or 49 *CFR* (as applicable).

6.2.29 VERIFY the additional specific NNSS WAC waste packaging requirements of CP3-WM-0707, *NNSS Specific Waste Characterization, Profiling, Packaging, and Shipping* have been met.

6.3 Container Preparation for Shipment

Action Steps (Perform steps sequentially unless otherwise noted.)

For Off-Site Shipments, follow **Steps 6.3.1** through **6.3.17.** Chg A

Waste Engineer/Field Engineer/FLS

6.3.1 Request RCT Supervisor to perform pre-shipment surveys on EACH waste package listed on load list.

RCT

6.3.2 PERFORM a pre-shipment survey of EACH waste package. Document survey on the final Radioactive Shipment Survey.

6.3.3 **IF** contamination is discovered during the pre-shipment survey, **THEN** DISCUSS

radiological waste package issues with the RCT supervisor or equivalent, Transportation Services, and/or the WCO as applicable and follow instructions for compliance.

NOTE:

For shipments to NNSS and other DOE owned facilities**,** external contamination levels for waste packages and transport vehicles must meet the release limits specified in 10 *CFR* 835 or the TSDF limits; whichever are more stringent."

6.3.4 COMPLETE pre-shipment surveys within 30 calendar days prior to shipment.

6.3.5 OBTAIN concurrence from the Radiation Protection Program Manager and Waste Transportation Services for exceptions and the WCO for NNSS Shipments exceptions.

Operator

6.3.6 At the direction of the FLS, STORE/STAGE the sealed waste containers in a secure area to prevent unauthorized intrusion and in a manner that protects the container from the weather.

6.3.7 USE tarps or other protective devices/equipment for containers stored outside to prevent unauthorized intrusion, infiltration of rainwater, or changes in radiological conditions.

Waste Engineer/Field Engineer

6.3.8 **IF** waste is being disposed at NNSS, **THEN** VERIFY the additional specific NNSS WAC waste characterization and packaging requirements of CP3-WM-0707, *NNSS Specific Waste Characterization, Profiling, Packaging, and Shipping* have been met.

6.3.9 VERIFY final characterization values according to CP3-WM-0437, *Waste Characterization and Profiling*.

6.3.10 CLOSE all NCRs for each container according to CP3-QA-2005.

NOTE:

Additional documents may be requested by the Waste Transportation Manager/Specialist as needed. Integrated Waste Tracking System (IWTS) information may be used for drum shipments in lieu of Waste Item Container Logs and Request for Disposal Forms.

6.3.11 PROVIDE the following to the Waste Transportation Manager/Specialist according to CP3-WM-3028, *Off-Site Shipping*:

- Form CP3-WM-3028-F01, "Request for Transportation Services"
- Final approved Characterization Documentation Detailed radiological information for packages containing mixtures of LSA/SCO or the DOT LSA Evaluation Report from the SCO Worksheet (see Attachment K of CP3-WM-0437)
- Completed DC/TO form – must be clear that review was completed for the waste contents
- Completed form CP3-WM-3015-F01, "Waste Item Container Log"
- Completed form CP2-WM-0011-F02, "Request for Disposal"
- Weight Tickets (if applicable)
- LDR/underlying hazardous constituent (UHC) forms CP3-WM-0437-F04, "Land Disposal Notification and Certification Form"; UHC is in the CP3-WM-0437-F04 form (if applicable)

- Form CP3-WM-3015-F02, "Paducah Non-NNSS Pre-transportation Inspection Checklist" (if applicable)

Container Management

6.3.12 OBTAIN conveyance (Rail/Truck) number from the Waste Transportation Manager or Transportation Specialist.

Container Management

6.3.13 PERFORM pre-transportation inspection of containers prior to shipment.

6.3.14 **IF** inspection stands rated to safely support the weight of a filled container **ARE NOT** available, **THEN** PERFORM inspection of the underside of a container suspended by a lifting device using visual observation supplemented by use of extended poles with mirrors, if necessary.

NOTE:

Container inspection stands shall be inspected and approved prior to use by the FLS.

6.3.15 **IF** inspection stands are available and approved for use, **THEN** PERFORM inspection of container surfaces not accessible when the container is on the stand prior to the container being placed on the stand.

Container Management

6.3.16 DOCUMENT the results of the stand inspection on form CP3-WM-3015-F06, "Container Inspection Stand Pre-Use Checklist".

NOTE:

Container shall be placed on the transport vehicle after this inspection; it must not be placed on the ground.

Inspection shall include all surface areas of each container for evidence of the following:

- Loose or deposited contamination;
- Other material (e.g., mud, peeling paint, unattached plastic sheeting, uranium deposits);
- Free or trapped liquids;
- Stains;
- Excessive dirt, dust, soil, gravel, product, oil, grease; and
- Any other condition that may impact container integrity, mask contamination, hide deformities, or fall off during transport.

6.3.17 VISUALLY inspect underside and sides of each container.

Operator

6.3.18 REMOVE loose material as directed by the FLS.

Container Management

6.3.19 PERFORM a pre-transportation inspection by completing form CP3-WM-3015-F02 for non-NNSS shipments.

Chg A

6.3.20 VERIFY **and** DOCUMENT on CP3-WM-3015-F02 that EACH container on the load list has an approved Pre-Shipment Survey.

Chg A

Operator

6.3.21 LOAD containers as instructed by FLS onto conveyance.

Waste Engineer/Field Engineer/Field Coordinator

NOTE:

For movements to the C-746-U Landfill, follow **Steps 6.3.22** through **6.3.25.**

For Waste to be disposed at the C-746-U landfill:

- Waste stream shall not exceed the Authorized Limits for the C-746-U Landfill.
- Weight limits of specific containers (pay load) and packages shall not be exceeded.
- Disposal of waste containing free liquids is prohibited.
- Gross weight of packages shall not exceed 120,000 lbs.
- Radiological Surveys shall be conducted in accordance with applicable Radiological Control Procedures.

6.3.22 **IF** the waste is being disposed in the C-746-U landfill, **THEN** COMPLETE a landfill package according to CP3-WM-3025.

6.3.23 FOLLOW **Section 6.5** for C-746-U Landfill Free Liquid Mitigation Plan.

Certified Landfill Manager

6.3.24 PERFORM periodic oversight of the Waste Generators completion of form CP3-WM-3015-F04, “Free Liquid Verification Checklist”.

Landfill Personnel

6.3.25 **WHEN** waste is scheduled to be generated and is to be disposed at the Landfill, INSPECT waste being prepared for landfill disposal at least once during waste generation.

6.4 Paint Filter Liquids Test

NOTE:

The paint filter test is required for all containers being disposed of at the **C**-746-U landfill, if practicable. Additional guidance is located in Attachment C.

Waste Generator/ Waste Management personnel

Action Steps (Perform steps sequentially unless otherwise noted.)

6.4.1 ASSEMBLE test apparatus in accordance with Figure 1, Attachment D.

6.4.2 **IF** necessary, PROVIDE support for the filter with a funnel.

6.4.3 **IF** the sample is of such light bulk density that it overflows the filter, **THEN** EXTEND the sides of the filter upward by taping filter paper to the inside of the filter and above the mesh.

6.4.4 RECORD Container ID Number, Date of Sample collection, and Collector of Sample on form CP3-WM-3015-F05, "Paint Filter Liquids Test Report".

NOTE:

Scale and thermometer shall be calibrated in accordance with manufacturer's instructions.

6.4.5 MEASURE out 100 gram (g) or 100 milliliter (mL) sample and record which of the preceding was used on form CP3-WM-3015-F05.

6.4.6 RECORD the ambient temperature on form CP3-WM-3015-F05.

6.4.7 PLACE sample into the filter and record the test date and time on form CP3-WM-3015-F05.

6.4.8 FACILITATE the settling of the sample into the paint filter by lightly tapping the side of the filter as it is being filled.

NOTE:

Size reduction may be accomplished by cutting the sorbent material with scissors, shears, a knife, or other such device so as to preserve as much of the original integrity of the sorbent fabric as possible.

Sorbents enclosed in a fabric shall be mixed with the resultant fabric pieces.

6.4.9 In order to assure uniformity and standardization of the test, CUT material such as sorbent pads or pillows which do not conform to the shape of the paint filter into small pieces prior to placing the material into the filter.

6.4.10 SIZE-REDUCE particles to be tested smaller than 1 centimeter (cm) (capable of passing through a 9.5 millimeter [0.375 inch] standard sieve).

6.4.11 AVOID grinding sorbent materials as this may destroy the integrity of the sorbent and produce many "fine particles" which would normally not be present.

NOTE:

Materials such as clay, silica gel, and some polymers may fall into this category.

6.4.12 **IF** the waste is a brittle material with particle size larger than 1 cm **AND** the material does not conform to the filter **AND** it is not practical to cut the material, **THEN** LIGHTLY CRUSH the material to reduce oversize particles.

6.4.13 ALLOW sample to drain for 5 minutes into the graduated cylinder.

6.4.14 **IF** any portion of the test material collects in the graduated cylinder in the 5 minute period, **THEN** the material contains free liquid according to 40 *CFR* 264.314 and 265.314.

6.4.15 RECORD time of test conclusion, if proper filter was used and result of test on form CP3-WM-3015-F05.

6.4.16 PRINT and Sign your name on form CP3-WM-3015-F05.

6.5 C-746-U Landfill Free Liquid Mitigation Plan

NOTE:

Protection of C-746-U waste containers from effects of precipitation is performed in accordance with **Steps 6.6.1** and **6.6.2**.

FLS

NOTE:

Tarps must be inspected prior to use to ensure that they are in usable condition.

6.5.1 **IF** possible, Store container inside.

6.5.2 **IF** container cannot be stored inside, **THEN** DIRECT Operator to cover with a tarp or other protective device.

Waste Engineer/Field Engineer/Waste Management personnel

NOTE:

Steps in the next section or subsection are numbered for reference only. The numbers do not indicate that steps are to be performed in order or sequentially.

6.5.3 INSPECT containers for the presence of free liquids **IMMEDIATELY** prior to transport to landfill.

6.5.4 **IF** free liquids are observed, **THEN** COMPLETE CP3-WM-3015-F03, “Absorbent Determination Form”, and provide the form and guidance to the FLS on adding suitable absorbents or decanting liquids in performing **Steps 6.5.5** through **6.5.8**

Operator

6.5.5 ADD suitable absorbents **OR** decant liquids as directed by the FLS with guidance from the Waste Engineer/Field Engineer.

6.5.6 ADD absorbents at a concentration greater than the manufacturer's recommended concentration in accordance with form CP3-WM-3015-F03, “Absorbent Determination Form” as directed by the FLS with guidance from the Waste Engineer/Field Engineer.

6.5.7 OPEN “drum size” (55 gallon) or smaller containers by transferring the contents to a bulk size container (e.g. rolloff bin) so that trapped liquids can be released.

6.5.8 Upon release of trapped liquids from drum size containers, DECANT liquids, if possible, or ADD absorbent (e.g. QuikSolid®, bentonite, vermiculite etc.) in accordance with form CP3-WM-3015-F03as directed by the FLS with guidance from the Waste Engineer/Field Engineer.

Waste Engineer/Field Engineer

6.5.9 **IF** containers have been in storage after packaging for a period of six months or longer, **THEN** PERFORM Risk Assessment in accordance with CP3-WM-0437 and document on CP3-WM-0437-F07.

Operator

6.5.10 REMOVE and REPACKAGE the waste contents at the direction of the FLS with guidance from the Waste Engineer.

6.5.11 DRAIN, COLLECT, and DISPOSE of liquid by solidifying the liquid and returning the solidified matrix to the original waste stream and/or material may be repacked into container(s) prepared with additional absorbent.

Waste Engineer/Field Engineer

6.5.12 **IF** waste stream could have free liquids captured in the interstitial spaces within the waste mass (e.g. soils, sludges, sediments), **THEN** PERFORM a Paint Filter Liquids Test (**Section 6.4, Attachment D**).

6.5.13 **IF** the was**te** fails the Paint Filter Test, PROVIDE guidance and Form CP3-WM-3015-F03, "Absorbent Determination Form", to the FLS on the amount and type of absorbents to add.

Operator

6.5.14 ADD absorbents at a concentration greater than the manufacturer's recommended concentration in accordance with form CP3-WM-3015-F03 as directed by the FLS with guidance from the Waste Engineer/Field Engineer.

Waste Engineer/Field Engineer

6.5.15 RE-RUN Paint Filter Test(s) (**Steps 6.5.12** through **6.5.14**) until a passing test is achieved.

6.5.16 DOCUMENT free liquid inspection of waste containers on form CP3-WM-3015-F04, "Free Liquid Verification Checklist".

7.0 ACCEPTANCE CRITERIA

None

8.0 POST PERFORMANCE WORK ACTIVITIES

None

9.0 RECORDS

9.1 Records Generated

The following records may be generated by this procedure:

- Form CP3-WM-3015-F01, "Waste Item Container Log"
- Form CP3-WM-3015-F02, "Paducah Non-NNSS Pre-Transportation Inspection Checklist"
- Form CP3-WM-3015-F03, "Absorbent Determination Form"
- Form CP3-WM-3015-F04, "Free Liquid Verification Checklist"
- Form CP3-WM-3015-F05, "Paint Filter Liquids Test Report"
- Form CP3-WM-3015-F06, "Container Inspection Stand Pre-Use Checklist"

9.2 Records Disposition

The records are to be maintained in accordance with CP3-RD-0010, *Records Management Process*.

Appendix A – Acronyms/Definitions

ACRONYMS

CFR – Code of Federal Regulations
cm – centimeter
DC – Derivative Classifier
D&D – decontamination and decommissioning
DOE – U. S. Department of Energy
DOT – U.S. Department of Transportation
FGE – fissile gram equivalent
FLS – Frontline Supervisor
g – gram
IID – intrusion-indication device
IWTS – Integrated Waste Tracking System
KAR – Kentucky Administrative Regulations
LDR – land disposal restriction
LLW – low-level waste
LSA – low specific activity
MBA – material balance area Chg A
MBq – megabecquerel
mL – milliliter
MLLW – mixed low-level waste
MW – mixed waste
NAC – Nevada Administrative Code
NCS – Nuclear Criticality Safety
NCSE – Nuclear Criticality Safety Evaluation
NNSS – Nevada National Security Site
NMC&A – Nuclear Material Control & Accountability Chg A
PCB – polychlorinated biphenyl
PE-g – Plutonium-239 equivalent gram
QA – quality assurance
RALLW – regulated asbestos low-level waste
RCRA – Resource Conservation and Recovery Act
RCT – radiological control technician
SCO – surface contaminated object
TID – tamper indication device
TSCA – Toxic Substances Control Act
TSDF – treatment, storage, and disposal facility
µCi – microcurie
UHC – underlying hazardous constituent
WAC – waste acceptance criteria
WCO – Waste Certification Official
WPC – waste package certifier

Appendix A – Acronyms/Definitions (continued)

DEFINITIONS

Collection Container – Any container in which waste or materials from a single or multiple sources are collected over a period of time. Example – small quantities (3 to 5 gallons) of vent duct liquids from various process buildings (C-333, C-335, C-337) collected/consolidated into a single container over a three to four month period. Waste in collection containers may include, but are not limited to, light bulbs, batteries, used oil, etc. Note: A container being created with the intent of completion at or near the time of origination is NOT a collection container. For example, soil being loaded into an intermodal as excavation occurs over a period of days is not considered a collection container.

Container Management – The WD Frontline Supervisor who is responsible for the movement of containers, pre-service and pre-transportation inspection of containers (non-NNSS), inspection of container inspection stands, and arranging the loading of conveyances (rail/trucks).

Hazmat Employee – A person who is employed on a full-time, part time or temporary basis by a hazmat employer and who in the course of such employment directly affects hazardous materials transportation safety or who during the course of employment performs any of the following:

- Loads, unloads, or handles hazardous materials;
- Designs, manufacturers, fabricates, inspects, marks, maintains, reconditions, repairs, or tests a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous materials in commerce;
- Prepares hazardous materials for transportation;
- Is responsible for safety of transporting hazardous materials;
- Operates a vehicle used to transport hazardous materials.

Landfill Personnel – This position includes the Certified Landfill Manager and Landfill Technician.

Low-Level Waste (LLW) – All radioactive waste that is not high-level waste, spent nuclear fuel, transuranic waste, by-product material [as defined in section 11e. (2) of the Atomic Energy Act of 1954, as amended], or naturally-occurring radioactive material.

Mitigation Plan – These plans indicate how to manage non-conforming items when found during packaging/repacking events. They are generally included in the particular work control document(s).

Mixed Waste – Waste that is both RCRA and radioactive.

Nevada National Security Site Waste Acceptance Criteria (NNSS WAC) – The NNSS document that establishes the United States Department of Energy Nevada Operations Office waste acceptance criteria and requirements for waste certification and transfer.

Non-routine Work – New work or work that is infrequently performed. This work requires that workers be briefed on the work package, Activity Hazard Analysis, and other pertinent aspects of the job prior to work execution.

Package – The packaging together with its contents as presented for off-site or on-site transport (49 CFR and CP2-WM-0661).

Packaging – The assembly of components necessary to ensure compliance with the packaging requirements of 49 CFR and CP2-WM-0661.

Record – A completed document or other medium that provides objective evidence of an item, service, or process

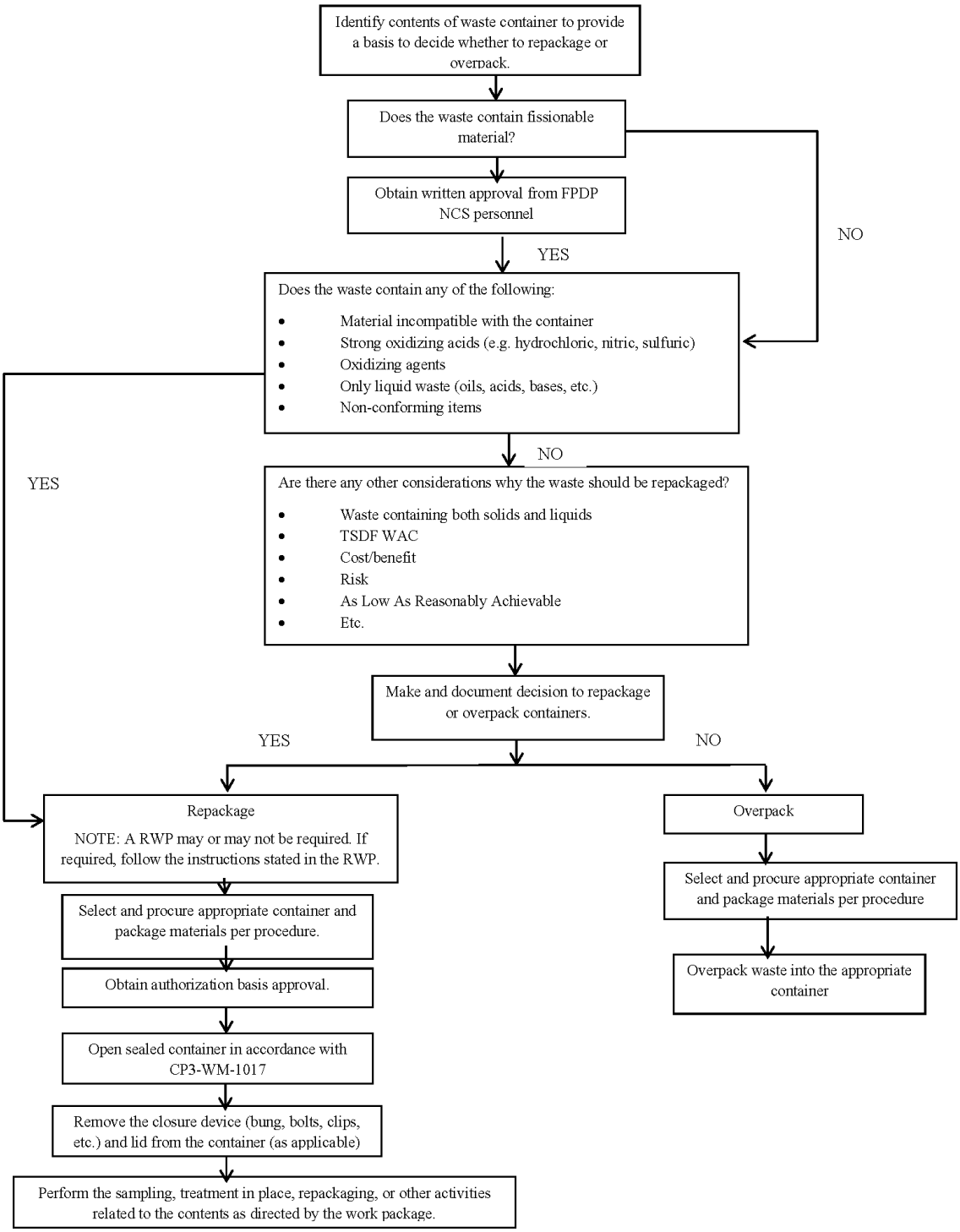
Waste Acceptance Criteria – The technical and administrative requirements that a waste must meet in order for it to be accepted at a treatment, storage, or disposal facility.

Appendix A – Acronyms/Definitions (continued)

Waste Certification – A process by which a waste generator affirms that a given waste or waste stream meets the waste acceptance criteria of the facility to which the generator intends to transfer waste for treatment, storage, or disposal.

Waste Container – A receptacle for waste, including any liner, shielding, or material that is intended to accompany the waste in disposal.

Appendix B – Repackaging Waste and Overpacking Waste Container Flowsheet



Appendix C – Paint Filter Liquids Test

Method 9095B - Additional Guidance

SCOPE AND APPLICATION

This method is used to determine the presence of free liquids in a representative sample of waste. The method is also used to determine compliance with **401 *KAR* 48:090 Section 8(1)(b);** 40 *CFR* 264.314 and 265.314.

SUMMARY OF METHOD

If any of the sample placed in the paint filter passes through and drops from the filter within five minutes, the material is deemed to contain free liquids.

INTERFERENCES

Filter media were observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed. The temperature can also affect the test results if the test is performed below the freezing point of any liquid in the sample. Tests must be performed above the freezing point and can, but are not required to, exceed room temperature of 25°C.

APPARATUS AND MATERIALS

- Conical paint filter: Mesh number 60 +/- 5% (fine meshed size). Available at local paint stores.
- Glass funnel: If the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or glass funnel with a mouth large enough to allow at least 1 in. of the filter mesh to protrude should be used to support the filter. The funnel should be fluted or have a large open mouth in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the liquid that passes through the filter mesh.
- Ring stand and ring, tripod, etc.
- Graduated cylinder or beaker:
- Thermometer
- Scales

SAMPLE COLLECTION, PRESERVATION, AND HANDLING

A 100-mL or 100-g representative sample is required for the test allowing rounding using scientific method (e.g., using between 99.5 to 100.4 is equivalent to 100). If it is not possible to obtain a sample of 100 mL or 100 g that is sufficiently representative of the waste, use larger samples in multiples of 100 mL or 100 g, i.e., 200, 300, 400 mL or g. However, when larger samples are used, analysts shall divide the sample into 100-mL or 100-g portions and test each portion separately. If any portion contains free liquids, the entire sample is considered to have free liquids. If the sample is measured volumetrically, then it should lack major air spaces or voids.

Composite sampling may be used; composite sampling involves consolidation of material from more than one container in a population. The purpose for sampling and the regulatory or TSDF threshold should be considered before composite sampling is selected. If the container to be sampled includes heterogeneous waste, then multiple samples from various parts of the container may be required from the same container and consolidated into one sample.

Appendix C – Paint Filter Liquids Test (continued)

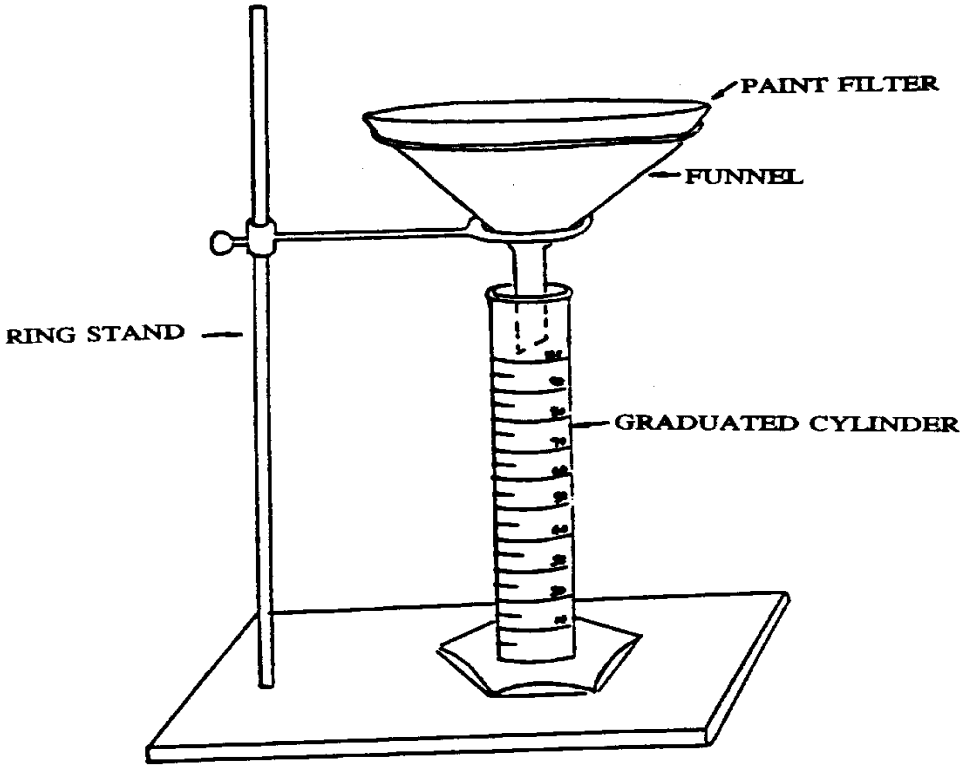
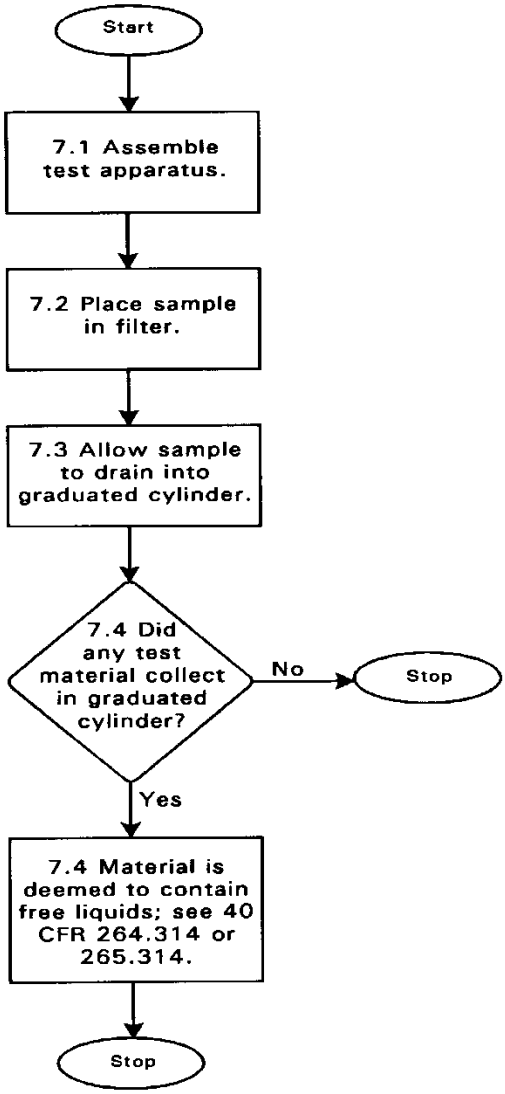


Figure 1. Paint filter test apparatus.

Appendix C – Paint Filter Liquids Test (continued)

METHOD 9095A
PAINT FILTER LIQUIDS TEST



Form CP3-WM-3015-F01 – Waste Item Container Log

A. Waste Tracking Information	A1. Page _____ of _____	A2. Waste Item ID No.	A3. RFD Document Number
A4. Charge Code	A5. Storage Location ☐ CERCLA Storage ☐ Permitted Storage ☐ Other Storage(Describe) _____ Building/Area:_____ Grid Location: _____		
B. Non-Containerized Waste ☐ N/A for containerized waste	B1. Describe Method of Transport (i.e., palletized, self-contained, etc.)		
C. Containerized Waste - Empty Container Information ☐ N/A for non-containerized waste	C1. PO Number	C2. Container Serial Number	C3. Barcode Number

C4. Container Type (Check All Applicable) - For Drums indicate M for Metal or P for Poly	C5. Container Specification
☐ Intermodal ☐ Roll-Off Bin ☐ ST-90 ☐ B-12 ☐ Tank_____ Type	☐ IP-I ☐ IP-II ☐ DOT 7A Type A
☐ 110-gal ☐ 85-gal ☐ 55-gal ☐ 30-gal ☐ 10-gal ☐ 5-gal	☐ Fissile Rated ☐ Excepted Packaging
☐ Sealand ☐ Gondola (Low Sided) ☐ Gondola (High Sided)	☐ 1A1 ☐ 1A2 ☐ 1H1 ☐ 1H2
☐ Other: ☐ OP (Describe Inner _____)	☐ Other: ☐ N/A

C6. Container Tare Weight (lbs):	C7. Maximum Loading Capacity (lbs/gals):	C8. Container External Gross Volume (ft^3/gals):	C9. Container Internal Volume Capacity (ft^3/gals):

D. Container Inspection and Preparation
☐ N/A for non-containerized waste (if absorbent materials are used for non-containerized waste- complete D5.-D9.)

D1. Verify a Receipt and/or Pre-service inspection, and applicable Incoming Radiological survey, has been completed and the container is acceptable for use. ☐ Yes ☐ No ☐ N/A Receipt Inspection # or Date (if applicable)_____ Pre-Service Inspection Date (if applicable) _____ N/A - only for containers not destined for off-site transport (e.g. roll-offs, storage tanks, frac tanks, or other type of tanks, etc.)	D2. Verify the container is empty, free of dents, bulges, holes, excessive rust, or any other condition that could affect structural integrity or impair its ability to container waste. ☐ Yes ☐ No Verify the integrity of the seal(s) – no dents, cracking, tears, gouges, warpage, or other damage that would impact the ability of the container to be sealed. ☐ Yes ☐ No Verify container closure mechanisms are in place and functioning as designed. ☐ Yes ☐ No

D3. Container Liner ☐ Yes ☐ No Thickness (mil): _____	D4. If liner is used, verify it is installed and it is intact (no holes, rips or defects that would render it unacceptable for use). ☐ Yes ☐ No ☐ N/A	D5. Absorbent Materials added according to approved Absorbent Determination (CP3-WM-3015-F03). ☐ Yes ☐ No ☐ N/A

D6. Type of Absorbent	D7. Absorbent Quantity	D8. Absorbent PO Number	D9. Absorbent Lot Number

D10. If top loading an end door/top loading intermodal container, verify the end door is closed per manufacturer's instructions prior to loading. ☐ Yes ☐ No ☐ N/A	Comments:

Sections A, B, C, & D Verifier Signature/Date:

E. Waste Contents

Note: This section should include sufficient details necessary for disposition (i.e. Ni/Cad Batteries – Terminals Taped, Small Non-Leaking Capacitors, Transformers – PCBs Drained, Chemical Bottles – Empty or Full, etc.)

E1. Waste Material Placed in (or Removed from) Container	E2. Amount (Quantity/Volume)	E3. Depositor Initial/Date	E4. Comments (If waste is removed from container, then final disposition must be noted)

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

E. Waste Contents (continued)	A1. Page _____ of _____	A2. Waste Item ID No.	A3. Document ID Number

E1. Waste Material Placed in (or Removed from) Container	E2. Amount (Quantity/Volume)	E3. Depositor Initial/Date	E4. Comments (If waste is removed from container, then final disposition must be noted)

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

F. Content Verification	A1. Page _____ of _____	A2. Waste Item ID No.	A3. Document ID Number

F1. Content Description	F2. Charge Code	F3. Origin Date	F4. RCRA Accumulation Date	F5. PCB Date to Storage

F6. Total Estimated Waste Volume (ft3/gal)	F7. Landfill Package ID	F8. Off-Site Profile and Revision Number

F9. Free Liquids? ☐ Yes ☐ No Est % _____ Describe (Oil/Water based):	F10. Verify only approved waste in container and packaging performed according to approved work instruction or procedure (list applicable documents)? ☐ Yes ☐ No _____	F11. Verify minimum void space prior to closure? ☐ Yes ☐ No Est. % _____ ☐ N/A

F12. Verify waste packaged to prevent movement or shifting during transportation. ☐ Yes ☐ No ☐ N/A for liquids Comments:	F13. Verify appropriate radiological surveys and dose readings are performed for SCO/LSA type shipments? ☐ Yes ☐ No ☐ N/A List Survey Number(s): _____

F14. Verify any in-process waste packages are secured against accidental or deliberate introduction of a prohibed material (e.g., area secured, container secured with an IID or other method). ☐ Yes ☐ No

Sections E & F Verifier Signature/Date:

G. Container Closure ☐ N/A for non-containerized waste	G1. Verify the container is closed according to the manufacturer's instructions. ☐ Yes ☐ No

G2. Calibrated torque wrench used? ☐ Yes ☐ No ☐ N/A
If a calibrated torque wrench is used, ensure the bolt has been torqued as specified by the manufacturer and record the torque reading (_____ft/lbs), torque wrench ID number _____, and Calibration Due Date _____.

G3. Verify the IID/TID(s) are installed on container. IID/TID No.(s):
☐ Yes ☐ No ☐ Welded Shut
☐ N/A Lock No.(s): Date Completed:

G4. Notify SST Security if locks were applied to package.
Initial: Date:

Section G Verifier Signature/Date:

H. Final Weight Verification-Landfill personnel complete upon receipt -for Landfill waste only	H1. Gross Weight Package (lbs):	H2. Total Tare Weight (lbs):	H3. Net Weight Contents (lbs):

H4. Scale ID Number	H5. Scale Calibration Due Date	H6. Does package meet applicable weight restrictions? ☐ Yes ☐ No	**Verifier Signature/Date:**

I. Certification	I1. List any container integrity deficiencies and Non-Conformance Report Tracking Number(s) as applicable:

Waste Engineer: I certify the above information on this form is true and accurate to the best of my knowledge.

Printed Name	**Badge Number**	**Signature**	**Date**

J. Authorization Basis (Waste Disposition Personnel Only)	J1. AB Profile	J2. Content Type	J3. Newly Generated Date

J4. Assignee (Print)	**Verifier Signature/Date:**

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

Waste Item Container Log Instructions

NOTE: Place N/A in any items that are not applicable.

NOTE: Verifier Signature/Date for sections of the log should be completed by the person completing or verifying the sections as instructed by the applicable Waste Engineer assigned to the waste

NOTE: <u>Non-containerized waste</u> – complete Sections A, B, E, F, H, I, and J
Sections C, D, and G are N/A except IF absorbent material is used for non-containerized waste, complete Sections D5. through D9.
<u>Containerized waste</u> – complete Sections A, C, D, E, F, G, H, I, and J
Section B is N/A

A1. Page Numbers – Shows the total number of pages associated with the log form. Each log will have a minimum of two pages – additional pages for documenting container contents can be used as necessary. (i.e. A standard two page log will include Page 1 of 2 and Page 2 of 2)

A2. Waste Item ID No. – The number assigned to the waste item, RFD # with an extension to indicate container sequence. Example for RFD 123456 this number would be 123456-01 for the first container, 123456-02 for the second container.

A3. RFD Document No. – The Request for Disposal Form Number provided by Waste Disposition Database Personnel.

A4. Charge Code – Enter the charge code for the waste being generated.

A5. Enter the type of storage location (CERLA, Permitted, Other) and the Building/Area and Grid Location for the Collection Container.

B1. Non-containerized waste only – Describe the method of transport of unpackaged waste – i.e., strapped to pallets, waste water in portable tank, etc.

C1. PO Number – List the associated Purchase Order Number for the container – most newly procured containers are found with the associated PO Number on a label/sticker. This number assists with finding the associated Certificates of Conformance and Manufacturer's testing data associated with each container loaded.

C2. Container Serial No. – The empty container identification or serial number. (e.g. BFLUxxxxxx). This number is generally stenciled, stamped, or embossed on the containers. Some containers have metal plates that include the manufacturer's serial number.

C3. Barcode Number – The barcode number placed on the outermost container for the waste. The barcode should be placed on container prior to waste being packaged. Barcodes can be provided by Waste Disposition Database Personnel upon request.

C4. Container Type – The final packaging for the waste form or item. For overpacks, the outer package should be marked in addition to the OP field. Must describe the inner container associated with all overpacks on the line provided. For drum sizes shown, should indicate an M for Metal or a P for Poly. The M or P can be written below the drum size.

C5. Check applicable container specification. For Non-DOT Specification containers, N/A should be indicated. It is recommended that Transportation Personnel be contacted prior to using any non-specification container to ensure DOT requirements can be met for subsequent shipment as applicable.

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

Waste Item Container Log Instructions

C6. Container Tare Weight – Tare Weight in pounds as provided by the manufacturer, typically is stamped onto bulk packages. For gondolas, is typically stenciled as the LIGHT WEIGHT, or LT WT.

C7. Maximum Loading Capacity – maximum pounds or gallons (for tanks only- liquid) of contents that can be packaged into the container, typically stamped onto bulk packages. For gondolas, is typically stenciled as the LOAD LIMIT or LD LMT.

C8. Container External Gross Volume – cubic footage or gallons (for tanks only- liquid) of most external package dimensions. This number is used for estimation of disposal volume for packages being buried. This number is typically found with the manufacturer's information or drawings. For Intermodals, a standard value of 798 ft3 is used.

C9. Container Internal Volume Capacity – cubic footage or gallons (for tanks only- liquid) of the internal area available for packaging waste. This number is used to determine disposal costs for re-used containers sent to EnergySolutions Clive facility. This number is commonly stamped onto bulk packages, especially sealands. For Intermodals, a standard value of 685.8 ft^3 is used.

NOTE: If absorbent material is used for non-containerized waste, complete sections D5. through D9.

D1. Containers not specifically exempted from CP3-QA-2500 are "critical waste shipment items" and must meet the requirements contained CP3-QA-2500, *Procurement, Inspection and Management of Items Critical for Paducah Off-site Waste Shipments.* For the purpose of this check, a copy of the approved QA Receipt Inspection meets the criteria for conformance to CP3-QA-2500. For new containers that received a QA Receipt Inspection, record the Receipt Inspection Number assigned. This number allows for pairing the inspection up with the applicable container as necessary when compiling shipment information.

Containers used for shipment to the C-746-U landfill and used/recyclable containers used for off-site shipping to non-NNSS facilities are exempt from these requirements of CP3-QA-2500 and do not required receipt inspections by QA.

Tarp-topped roll off boxes (ROB) are use exclusively for shipments to the C-746-U landfill which is considered an "on site" facility. Neither the QA receipt inspection or the Pre-service inspection is required for ROB.

Used/recyclable containers used for off-site shipping to non-NNSS facilities must be certified by the manufacturer as meeting the DOT criteria for "excepted packagings." A qualified individual at the Paducah Gaseous Diffusion Plant must verify and document the container meets the criteria for "excepted packagings." A copy of the approved *Pre-Service Inspection Form* constitutes verification of conformance to this requirement. For re-used or recycled containers, record the date the pre-service inspection was conducted in order to allow for pairing the inspection up with the applicable container as necessary when compiling shipment information.

Containers not destined for off-site transport (e.g., roll-offs, storage tanks, frac tanks, or other type of tanks, etc. are not applicable to this section.

D2. The light-leak test is completed during the Pre-Service Inspection and is not repeated at this time. The purpose of this inspection is to determine if the container was damaged during transfer to the project and as a quality control check on the pre-service inspection. Particular attention should be paid to known problem areas like cracks in Welds, especially on the top and bottom of the container.

The integrity of the seal depends on an undamaged, square, planar surfaces effectively contacting a complete and undamaged gasket. Verify the door and lid are not warped or deformed and hinges are

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

Waste Item Container Log Instructions

aligned squarely with the container. Verify the gasket has suitable elasticity and does not exhibit dry rot. Verify gasket shelf-life is acceptable, if specified by manufacturer, Chg B

NOTE: The "seal" can only be checked when the container is closed – this should be a check of the sealing surface and gaskets with the doors and lids open.

If container closure mechanisms use turnbuckles, verify the exposed threads are balanced and adequate to produce sufficient pressure on the sealing surfaces. Check for cracks and metal fatigue on turnbuckles attached to Aluminum lids as these fail more frequently than the mild steel turnbuckles at other points on the containers.

D3. Liners are recommended for bulk containers that are to be emptied and returned by the TSDFs to assist with unloading the waste and to decrease radiological contamination. Additionally, all bulk containers used for PCB contaminated waste should be lined to avoid PCB Decon and/or PCB Container management upon their return from the TSDF.

D4. Verify condition of liner if used – should be in good condition without rips or defects that would prohibit it from fulfilling its intended function

D5. Verify each combination of container and waste type has an absorbent determination and verify the absorbent has been added/installed correctly and completely. Verify the absorbent does not interfere with the sealing surfaces of the container.

D6. List Absorbent Type (i.e. Quick-Solid Sheets, Solid-A-Sorbe Granular)

D7. List Absorbent Quantity (i.e. Number of Sheets, Pounds of Granular)

D8. List Absorbent Purchase Order Number

D9. List Absorbent Lot Number

D10. If top loading an end door/top loading container, close the end door per manufacturer's instructions before adding waste from the top of the container to ensure waste does not interfere with or obstruct the sealing surfaces. Manufacturer's Instructions for Intermodal container closure should be posted on the container as follows:

a. Ensure the door is in the closed position.

b. Verify the "V" chain is hooked to the ratchet binder and tightened only enough to pull the slack out of the chain. NOTE: DO NOT TIGHTEN!

c. Verify the hinge ratchet binder is securely tightened.

d. Verify the "V" chain ratchet binder is securely tightened.

e. Verify the Flapper Lock is lifted into position and tightened evenly on both sides of the container.

E1. Waste Material Placed in Container or non-containerized method – A detailed list of any materials placed in the container or non-containerized. If repackaging rejected Mixed Low-Level Waste from NNSS then document parent Container ID number in this field.

E2. Amount (Quantity/Volume) – The number of items or volume of each waste addition to the container or non-containerized method.

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

Waste Item Container Log Instructions

NOTE: Typical units for E2 are gallons (gal), liters (L), NNSS must be recorded in cubic feet (ft3), etc. If the information in E2 is a count of items, then write "items" in E2, (i.e., E1 says "small capacitors", E2 says "15 Items").

E3. Depositor – The initials of the person placing an item in the container or non-containerized method and the date it was placed into the container or non-containerized method.

E4. Comments – Any comments about the items placed into the container (such as survey #, sample #'s, spill #'s, temporary TIDs used for collection containers, etc.) or non-containerized method. If waste is removed from container, then final disposition must be noted.

F1. Contents – The contents of waste placed in the container. (e.g. Debris, Metal, Soil, Sludge, etc.) or non-containerized method. Be cautious not to describe PCB Bulk Product as PCB Bulk. PCB Bulk indicates regulated PCBs requiring disposal in a mixed waste cell. PCB Bulk Product is considered LLW and can be disposed in a low-level waste cell. It is recommended to describe consistently with the waste profile or landfill package description the waste will be managed under.

F2. Charge Code – should list the charge code to be used for transportation and disposal costs

F3. Origin Date – the date the waste item was generated and/or declared a waste.

NOTE: For bulking operations, the origin date for the "newly generated waste" (the bulked waste) will be the earliest origin date noted for any of the wastes bulked.

F4. RCRA Accumulation Date - The date when RCRA hazardous or RCRA mixed (RCRA and radioactive constituents) waste is moved to a 90-day accumulation area or directly to a permitted storage area 1) from a satellite accumulation area or 2) immediately at the time of generation (i.e., no satellite accumulation).

NOTE: For bulking operations, the RCRA Accumulation Start Date for the "newly generated waste" (the bulked waste) will be the earliest RCRA Accumulation Start Date noted for any of the wastes bulked.

F5. PCB Date to Storage – The date a PCB item, article, or waste is removed from service for disposal. For a freestanding article or item, such as a transformer, capacitor, or ballast, this is the date the article or item is actually removed from service for disposal. For wastes other than articles and items which are placed in a containment system, such as a drum or box, this is the date the first drop or particle of PCB contaminated waste is placed in the containment system.

NOTE: For bulking operations, the PCB Start Date for the "newly generated waste" (the bulked waste) will be the earliest PCB Date to Storage of any of the wastes bulked.

F6. Est. Waste Volume – Estimated net volume (cubic feet) or gallons (for tanks only- liquid) of waste actually in the containment system; i.e., NOT the maximum volume the containment system is designed to hold.

F7. Landfill Package ID – Landfill Package waste will be disposed under if applicable. If not applicable, N/A should be noted.

F8. Off-Site Profile and Revision Number – TSDF approved waste profile number if applicable. If not applicable, N/A should be noted.

NOTE: Approved waste profile number and revision number is required for all NNSS waste.

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

Waste Item Container Log Instructions

F9. Verify if free liquids are present in the waste. If present, estimate the percentage and describe whether the liquids are oil or water based. This is necessary to ensure the appropriate profile is selected and/or proper mitigation is completed prior to disposition.

F10. Guidance for approved waste and prohibited items is contained in the applicable waste packaging work control documents or procedure which should be referenced on the line provided.

F11. Verify that minimum void space has been achieved and provide the estimated percentage. For certain waste streams, such as Mixed or PCB remediation waste destined for NNSS, there must be less than 10% void space. As necessary, void space for these type packages must be reduced by adding a filler type material such as vermiculite. It is critical that void space be limited in all packages to reduce unnecessary packaging, shipping, transportation, and disposal costs.

F12. General requirements for securing articles of cargo are contained in § 393.106 of the Federal Motor Carrier Safety Regulations.

F13. The number of radiological characterization surveys for surface contaminated objects (SCO) varies depending the variability of the contamination and the risk of exceeding the SCO limits contained 49 *CFR* § 173.403. Record all applicable characterization and 3 meter dose surveys on the line provided. This information is critical for the completion of characterization and shipment verification.

F14. Suitable methods of access control for containers are listed on the form.

G1. Manufacturer's instructions should be provided for all containers. If instructions are not available, please request from the frontline supervisor or logistics management personnel.

For end door/top loading containers, visual indicators for proper container closure include the following:

- When tightening closure devices, increase pressure incrementally moving from side to side to ensure the pressure around the seal is equal.
- Chains used to secure the end door should rigid and have no slack.
- "Fresh" grease on the turnbuckle threads indicate that it may be possible to closed the door further. Fresh grease may also indicate there is uneven pressure on the door (one side tightened more than the other).
- The threads on each side of the turnbuckle should be equal. The thread capacity should not be exhausted. If the threads are exhausted, the tension on the ratchet used to tighten the turnbuckle may prevent an effective seal of the container.
- View the entire length of the seal and verify the gasket is seated (i.e., not bulging) and there is even inward pressure.

G2. Record if calibrated torque wrench was required for proper closure. The serial number, calibration due date, and the torque reading should be recorded in the spaces provided.

G3. Record if IID/TIDs were placed on the container and record the date they were applied. If the container was welded shut in lieu of applying IID/TIDs, then mark accordingly.

Record IID/TID No(s). – The number(s) of the IID/TID(s) placed on the container when it is full or no additional contents will be placed into the container.

Record Lock No(s). – The number(s) of the lock(s) placed on containers that are packaged with UCNI, ECI, or Classified Materials.

Form CP3-WM-3015-F01 – Waste Item Container Log (continued)

Waste Item Container Log Instructions

G4. SST Security should be notified if locks were applied to the packages containing Classified, UCNI, or ECI materials. Please initial and date once the notification has been made.

H1. Gross Weight – Is the weight of container, liner, absorbent, and waste materials.

H2. Tare Weight – Is the weight of the container, liner and absorbent.

H3. Net Weight – Gross Weight – Tare Weight.

H4. Scale ID No. – Identification number of the scale used to weigh the container.

H5. Scale Calibration Due Date – The date the scale is due for calibration.

H6. Verify if final weight meets maximum loading restrictions for the container.

NOTE: Gross Weight of package(s) transported via highway should not exceed 43,500 lbs unless approved by Transportation Personnel. Arrangements for DOT Overweight loads must be approved by Transportation Personnel prior to packaging.

NOTE: Section H is completed by Landfill personnel upon receipt for Landfill waste only.

I.1 List all associated Non-Conformance Report Tracking Numbers so proper issue closure is verified prior to shipment or release from the site.

Waste Engineer Signature/Badge No. – Signature and badge number of the waste engineer responsible for oversight of the generator for the container. Date – Date the waste engineer verifies all information to be accurate.

NOTE: If the container is for disposal at NNSS, then the waste engineer cannot be the same as the depositor(s) in section E3. An independent verifier must sign.

J1. AB Profile – The authorization basis profile assigned to the waste per CP3-WM-0006.

J2. Content Type – The content type assigned to the waste per CP3-WM-0006.

J3. Newly Generated Date – To be completed by Waste Disposition personnel for tracking purposes only. The date which begins the one year disposal requirement per DOE O 435.1.

J4. Assignee – The signature and date of the person who assigned the AB Profile and the Content Type. Date – Date the assignee signs as complete.

Form CP3-WM-3015-F02 – Paducah Non-NNSS Pre-Transportation Inspection Checklist

Activity:		**Location:**	
Work Package No:		**Trailer/Van/Railcar No.:**	
Receiving TSDF:		**Container(s) No.:**	
	POST-LOAD /PRE-TRANSPORTATION INSPECTION ACCEPTANCE CRITERIA	**ACCEPT**	
		YES	**NO**
1.	Verify that the container has not been damaged during packaging operations such that the structural integrity or ability to contain its contents has been impaired.		
2.	Verify that all lids, seals, doors, vent plugs (if applicable), and seams are properly seated and secured to ensure containment of the contents.		
3.	Verify that IID/TID(s) are in place and the numbers are consistent with those referenced on the Waste Item Container Log, CP3-WM-3015-F01.		
4.	Verify that the locking mechanisms/assemblies, closure devices or rings are properly secured and locked.		
5.	Ensure that bolts/bung plugs (if applicable) are torqued to the appropriate ft-lb setting in accordance with manufacturer's instructions. Also, record the following information: Torque Wrench ID_____Calibration Due Date_____Torque ft-lb_____		
6.	Verify all surfaces applicable to the container: lid, top, locking mechanism, ring, rims, sides, bottom, doors, and all surfaces of runners/channels and corner chain holes have been inspected and do not have loose or congealed contamination and/or free or trapped liquids.		
7.	Ensure lifting devices are rendered inoperable (taped, removed, etc.).		
8.	Verify that the correct trailer/van/railcar has been stated staged is empty and clean (no debris), and has no major defects/damages that would deem it "out of service".		
9.	Verify that Pre-Shipment Surveys and DOT Marking and Labeling has been completed prior to loading containers onto conveyance.		
10.	Verify that the correct containers have been loaded in accordance with Transportation Personnel guidance using the recommended securement devices.		
11.	Verify that the appropriate placards have been placed on all 4 sides of the loaded conveyance.		
12.	As applicable, notify SST Security Personnel prior to movement of Classified, UCNI, or ECI materials.		
Comments/Remarks:			
NCR # (if applicable):			
Frontline Supervisor or Equivalent:		**Date:**	
Peer Reviewer:		**Date:**	

Form CP3-WM-3015-F02 – Paducah Non-NNSS Pre-Transportation Inspection Checklist (continued)

General: Document acceptance or rejection of each item on the form CP3-WM-3015-F02 by initialing and dating the relevant column

1. Complete a visual inspection of all exterior surfaces of the container to ensure that it has not lost its ability to "contain its contents" during loading and transportation on site. The underside of the container must be inspected to ensure that the container floor was not punctured during loading or transport.

2. Verifying the efficacy of container accessories may require assistance from operators with appropriate tools. Refer to step 8 for visual indicators for proper container closure.

3. Self-explanatory.

4. For end door/top loading containers, Visual indicators for proper container closure include the following:
   - When tightening closure devices, increase pressure incrementally moving from side to side to ensure the pressure around the seal is equal.
   - Chains used to secure the end door should rigid and have no slack.
   - "Fresh" grease on the turnbuckle threads indicate that it may be possible to closed the door further. Fresh grease may also indicate that here is uneven pressure on the door (one side tightened more than the other).
   - The threads on each side of the turnbuckle should be equal. The thread capacity should not be exhausted. If the threads are exhausted, the tension on the ratchet used to tighten the turnbuckle may prevent an effective seal of the container.
   - View the entire length of the seal and verify that the gasket is seated (i.e., not bulging) and that there is even inward pressure.

5. Self-explanatory, a separate attachment may be used for container-specific torque data.

6. Refer to step 4 for visual indicators for proper container closure.

7. Self-explanatory.

8. Verify that the correct trailer/van/railcar as indicated on instructions provided by Transportation Personnel has been staged for loading. Transportation Personnel should be notified if the designated conveyance cannot be located. Verify that conveyance is in good working condition. Out of service conditions would include flat tires, damaged or insufficient tread, expired inspection dates, brake problems, cracked couplers, etc. Transportation Personnel should be notified of any suspect condition.

9. Consult with Transportation and RADCON Personnel to ensure all appropriate surveys and marking/labeling have been completed prior to loading containers. Ensure each container has been marked by RCT indicating completion of survey.

10. Container Identification Numbers should be verified for each container prior to loading to ensure that only those containers included on Transportation provided Load lists are loaded.

11. Apply placards provided by Transportation Personnel as indicated by their instructions.

12. For Classified, UCNI, and ECI materials packaged onto a conveyance, SST Security must be notified prior to movement of the materials to the staging area for transport. Only move such materials in accordance with SST approval.

Form CP3-WM-3015-F03 – Absorbent Determination Form

Waste Stream Identification and/or Container #(s):_____

Waste Type (Check One):

_____Waste Containing No Moisture _____ Low Moisture Content _____High Moisture Content

Waste Containing No Moisture

Container (Check One)	Internal Volume (cu ft)	Area of Floor (sq ft)		Condensate Accumulation (lbs water)[B]	Total Moisture Content (lbs water)	Absorbent Type & Amount Required (Circle the appropriate box) Lime/Clay (lbs)[1]	Granular Absorbent (lbs)[2]	Absorbent Pads/ Roll Absorbent (sq ft)[3,5]
10 gal	1.34			0.02	0.02	0.5	0.5	See Note 5
30 gal	4			0.05	0.05	0.5	0.5	See Note 5
55 gal	7.35			0.10	0.10	0.5	0.5	See Note 5
85 gal	11.4			0.15	0.15	0.5	0.5	See Note 5
110 gal	14.7			0.19	0.19	0.5	0.5	See Note 5
Metal Box (ST-90)[4]	90	30		1.19	1.19	1.2	0.5	See Note 5
Intermodal[4]	685.8	130		9.08	9.08	N/A	N/A	See Note 5
Sealand (20' L, 8.5' H)[4]	1,174	160		15.54	15.54	N/A	N/A	See Note 5
Sealand (40 'L, 12' H)[4]	3,655	320		48.37	48.37	N/A	N/A	See Note 5
Gondola[4]	6,275	515		83.05	83.05	N/A	N/A	See Note 5
Other (Specify):								

Low-Moisture Content Waste (for up to 1% Moisture per Container Volume)

Container (Check One)	Internal Volume (cu ft)	Area of Floor (sq ft)	Equivalent Weight of Water for 2% Int. Cont. Vol. (lbs water)[A]	Condensate Accumulation (lbs water)[B]	Total Moisture Content (lbs water)	Absorbent Type & Amount Required (Circle the appropriate box) Lime/Clay (lbs)[1]	Granular Absorbent (lbs)[2]	Absorbent Pads/ Roll Absorbent (sq ft)[C, 3]
10 gal	1.34		1.67	0.02	1.69	1.7	1.0	3.4
30 gal	4		4.99	0.05	5.04	5.0	1.0	10.2
55 gal	7.35		9.17	0.10	9.27	9.3	1.0	18.7
85 gal	11.4		14.22	0.15	14.37	14.4	1.0	29.0
110 gal	14.7		18.34	0.19	18.54	18.5	1.0	37.4
Metal Box (ST-90)[4]	90	30	112.29	1.19	113.48	113.5	2.3	229
Intermodal[4]	685.8	130	855.65	9.08	864.72	N/A	N/A	1,743
Sealand (20' L, 8.5' H)[4]	1,174	160	1,464.76	15.54	1480.29	N/A	N/A	2,984
Sealand (40 'L, 12' H)[4]	3,655	320	4,560.21	48.37	4,608.58	N/A	N/A	9,291
Gondola[4]	6,275	515	7,829.09	83.05	7,912.14	N/A	N/A	15,952
Other (Specify):								

High-Moisture Content Waste

Where is the waste being shipped?

- ☐ C-746-U Landfill [Package in accordance with Landfill WAC]
- ☐ Energy Solutions, Clive UT [Package in accordance with Energy Solutions WAC]
- ☐ NNSS [Package in accordance with the document "Position Paper for High Moisture Content Waste" Revision 0, November 3, 1998
- ☐ Other

* This document is posted on the NNSS Website @ http://www.nv.doe.gov/emprograms/rwap.aspx

Note: Appropriate Documentation must be attached.

NOTE: It is not recommended to use granular absorbent in Intermodals and Wooden Bottom Sealands/Containers as the absorbent has a tendency to sift out during transport.

Information

[A] Equivalent Weight of Water = (1% Int. Volume ft^3) * (7.48 gal/ft^3) * (8.34 lbs/gal water)

Assumptions

* 1% moisture by volume maximum in the waste. Must be able to absorb Twice the amount of liquid present in the waste.

[B] Condensate Accumulation = (Int. Volume ft^3 * 0.1)/(13.601 ft^3/lb dry air) * (0.02 lbs water/lb dry air) * (90 days)

Assumptions

* 10% Void Space in a container and 90 days accumulation

* 0.02 lbs water/lb air at 80 degrees F and 90% Relative humidity (Reference: Perry's Chemical Engineering Handbook 4th Ed. Chapter 15).

[C] Pounds of water absorbed per sq. ft. of absorbent pads/roll absorbent at a 1:15 absorbent to water ratio = 0.496 lbs

Assumptions

* 1 square foot of roll absorbent weighs 15 gms and is equivalent to 0.033 lbs absorbent

* 0.033 lbs absorbent * 15 lbs of water/ 1 lbs of absorbent = 0.496 lbs water that can be absorbed

[1] The absorptive capacity used is 1 pound hydrated lime/clay = 1.0 pounds water

[2] The absorptive capacity used for granular absorbent is 1:50 lbs of absorbent to lbs of water. Off-the-shelf product verifications have been performed on AquaSorbe, WasteLock, and Quik-Solid granular absorbents that show 1:100 maximum absorption.

[3] The absorptive capacity used for roll-type absorbent is 1:15 lbs of absorbent to lbs of water. Off-the-shelf product verification has been performed on Quik-Solid roll type absorbent that shows 1:30 maximum absorption.

[4] For Metal Boxes, Intermodals, Sealands, and Gondolas holding smaller inner containers adequately treated with absorbent as specified above, only 2 layers of absorbent pads are required.

[5] For 10, 30, 55, 85, and/or 110-Gallon Drums, Metal Boxes, Intermodals, SeaLands, and Gondolas, only 2 layers of absorbent pads are required.

References: *Table 16 of University of Findlay Absorption Study; Off-the Shelf Sorbent Product Verification, W/PAD-02-010*

Performed By: _____ Print/Sign _____ Date

Peer Reviewer: _____ Print/Sign _____ Date

Form CP3-WM-3015-F04 – Free Release Verification Checklist

Waste Stream: _____ **Waste Package Number:** _____ **Container Number:** _____

ELEMENT (Physical Characteristics)	Yes/No Initial & Date	RESULTS/COMMENTS
1.1 Are the containers drum size (55 gallon) or less? • If yes, proceed to step 1.3.1; if no step 1.2		
1.2 Have any boxes or larger containers been in storage after packaging for approx. 6 months or more? • If yes, proceed to step 1.3.1; if no step 2.1		
1.3.1 Has each container been opened and inspected for free liquids? • If it can be verified that there is no potential of free liquids, condensate or water infiltration proceed to step 2.1		
1.3.2 Unless there is a health concern with employee exposure to contaminants, were content(s) dumped into a decant bin, pad or tilt dumpster and inspected for noncompliant waste forms and allowed to drain? **NOTE:** As necessary, sort and separate the waste to allow release of trapped liquids. Remove noncompliant items.		
1.3.3 Were liquids collected, analyzed and treated as required for disposal?		
1.3.4 Were Paint Filter Liquid Tests conducted on representative samples of all suspect soils and sludges?		
1.3.5 For drum size containers once liquids were removed were contents mixed with absorbent (e.g., QuickSolid®, bentonite, vermiculite, etc.)?		
1.3.6 Was material repacked into container(s) prepared with additional absorbent?		
2.1 Has each drum/container been inspected for free liquids? If free liquids were present, were they removed or mitigated in an appropriate manner?		
2.2 Were representative Paint Filter tests conducted on the waste stream?		
2.3 Was the waste container checked for any visible signs of free liquids immediately prior to loading for transport to the C-746-U Landfill?		

Free Liquid Verification Checklist completed by: _____Date: _____

Free Liquid Verification Checklist verified by: _____ Date: _____

C-746-U Landfill Operations Manager or
Designee oversight * : _____Approve___Reject**___ Date: _____

* C-746-U Landfill Operations Manager or Designee will perform <u>periodic oversight</u> of Free Liquid Verification process and sign/date their concurrence that the proper steps have been followed.
* * If reject comment below

Additional Comments:

Form CP3-WM-3015-F04 – Free Release Verification Checklist (continued)

Waste Stream: _____ Waste Package Number: _____ Container Number: _____

FREE LIQUID VERIFICATION CHECKLIST (Instructions)

1. Review PAD-WD-3015, *Waste Packaging* for proper measures to prevent wastes containing free liquids being disposed at the C-746-U Landfill.
2. Complete each question as applicable.
3. If answer to step 1.1 is “yes” go to step 1.3.1, if “no” go to step number 1.2.
4. If answer to step 1.2 is “yes” go to step 1.3.1, if “no” go to step number 2.1.
5. In steps 2.1 and 2.2, assure that inspections for free liquids have been completed and the proper use of Paint Filter tests were completed on applicable suspect media (soils, sludges). Re-containerized waste must also be inspected for free liquids.
6. In step 2.3, verify that the waste container was inspected for free liquids immediately prior to loading for transport to the C-746-U Landfill.
7. Person performing the Free Liquid Verification Checklist must Sign and Date.
8. Person verifying the proper completion of the Free Liquids Verification Checklist must Sign and Date.
9. Provide results to all questions in area provided as needed.
10. Provide “Additional Comments” as needed in space provided at the bottom of the checklist.
11. C-746-U Landfill Operations Manager or Designee will perform a periodic oversight of the "Free Liquid Verification" process. When oversight is conducted, Sign, Mark Accept or Reject, and Date.
12. Attach a copy of the completed CP3-WM-3015-F04 form with each waste load.

Form CP3-WM-3015-F05 – Paint Filter Liquids Test Report

SAMPLE COLLECTION

Container Number _____

Date Collected _____

Sample Collected By _____
Printed Name

ANALYSIS

Date _____

Start Time/Stop Time _____ / _____

Amount of Soil Tested ☐ 100ml ☐ 100grams

Was proper Paint Filter Used? ☐ Yes ☐ No
(fine meshed size)

Air Temperature _____

Results ☐ Pass ☐ Fail

Test Performed By _____
Printed Name

_____
Signature

Test Method: Paint Filter Liquid Test (Method 9095B), EPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods

Form CP3-WM-3015-F06 – Container Inspection Stand Pre-Use Checklist

Chg A

Project:	Subcontractor:	
Completed By:	Date:	
Use of the container inspection stand must be performed under the requirements of a job specific Job Hazard Analysis (JHA) and detailed work package. (Note: Place copies of completed Inspection Stand Pre-Use Checklist in the working copy of the work package.)		
Lines of Inquiry	**Yes**	**No**
1. Employees have been briefed on the job specific JHA and Work Package.		
2. Stand is level in both directions. (Checked with level) (NA if stand is permanently mounted)		
3. Stand structural members are free from damage. (deflections, dents, etc.)		
4. Welds show no signs of visible cracking.		
5. Framing bolts are in place and nuts are snug.		
6. Ground around base plates is stable.		
7. Anchor bolts are in place and snug. (N/A if stand is on gravel)		
8. Grout under base plates is in good condition. (N/A if stand is on gravel)		
9. Container load(s) are below the inspection stand's rated capacity.		
Comments: **Note: Annual inspection performed by Engineering steps 1 and 9 are not required.**		