



# Attachment C

## Pre-Processing Waste

## Pre-Processing Waste

Revision 0

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- ☐ Title Change
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**Pre-Processing Waste**

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**1. PURPOSE AND SCOPE****1.1. Purpose**

This procedure explains the methods for reduction in volume, size or quantity of hazardous waste or waste containers and the subsequent transfer of waste into containers suitable for treatment.

**1.2. Scope**

This procedure applies to the preparation of waste for the treatment/solidification process in the Clive Mixed Waste Treatment Facility.

**2. REFERENCES**

- 2.1 ES-SH-PR-110, *Hazardous Energy Control*
- 2.2 CL-SH-PR-240, *Rigging, Slings, and Hoists*
- 2.3 ES-AD-PR-008, *Condition Reports*
- 2.4 ES-SH-PR-307, *Occupational Lead Exposure Management*
- 2.5 CL-MT-PR-001, *Pre-Operational Briefing*

**3. GENERAL****3.1. Definitions**

None

**3.2. Responsibilities**

- 3.2.1. **Director of Mixed Waste Operations** has overall responsibility for this procedure.
- 3.2.2. **Treatment Manager** is responsible for the overall implementation and accuracy of this procedure and conducting pre-operational briefings.
- 3.2.3. **Foreman** is responsible for building inspections and ensuring that qualified personnel implement the procedure.
- 3.2.4. **Treatment Operator** is responsible for overseeing and performing daily activities required for implementation of this procedure, and inspecting equipment.
- 3.2.5. **Health Physics Technician** is responsible for ensuring applicable Radiation Work Permit (RWP) and ALARA program requirements are correctly implemented.

### 3.3. Precautions and Limitations

- 3.3.1. Each waste stream to be handled or treated requires a RWP.
- 3.3.2. All personnel working with lead shall have training on EnergySolutions' Occupational Lead Exposure Management (Reference 2.4).
- 3.3.3. Before performing any adjustments or other activities that involve contact with moving parts of the extruder or other equipment, initiate lockout/tagout procedures in accordance with Reference 2.1, Hazardous Energy Control.
- 3.3.4. Lifting straps, slings, chains or other devices shall be certified and tagged for their rated load and use. These shall be inspected before each use. Use of these devices shall be performed in accordance with Reference 2.2, Rigging, Slings, and Hoists.
- 3.3.5. Caution shall be used around forklifts and other heavy equipment required to transport containers and to transfer heavy or bulky items from container to container.
- 3.3.6. Operators and technicians shall wear Personal Protective Equipment (PPE) as defined in the RWP for the waste stream being processed during startup, operation, shutdown, cleaning, and screw removal.
- 3.3.7. All personnel who will be involved in treatment operations shall have attended a pre-operational briefing for the waste stream to be treated that shift, in accordance with Reference 2.5, Pre-Operational Briefing.
- 3.3.8. All operators performing macroencapsulation shall be qualified as Treatment Operators, and personnel operating forklifts or other heavy equipment shall be qualified on them in accordance with EnergySolutions' Training Program.

### 3.4. Document Control and Records

- 3.4.1. Attachment 5.1, Overpack/Repack Operation Record, shall be transmitted to Document Control within 90 days of completion.
- 3.4.2. Attachment 5.2, Container In Tracking Record, shall be transmitted to Document Control within 90 days of completion.

## 4. REQUIREMENTS AND GUIDANCE

### 4.1. Compliance

- 4.1.1. Downloading and downsizing shall only be performed in the Mixed Waste Storage, Treatment, or Operations buildings.

- 4.1.2. Shredding shall be performed in the Treatment, Storage or Operations Building.

**NOTE:** PCB Waste cannot be size reduced in shredders not approved for use by the Environmental Protection Agency (EPA).

- 4.1.3. Only one waste stream shall be transferred or stored in a given container.

#### 4.2. Guidance

- 4.2.1. Transfer waste container(s) to be downloaded to the Storage Building, Operations Building or Treatment Building.
- 4.2.2. Operators shall inform the Health Physics Technician before opening containers. Health Physics Technician shall perform and document periodic surveys of waste material as specified in the RWP.

**NOTE:** Lead is a very effective shield and when, moved workers may be exposed to higher radiation levels.

- 4.2.3. Remove the lid from the container and visually inspects the waste inside for dust, liquid, or ice. Contact the Treatment Manager if excessive dust or any liquid or ice is found.
- (1) If liquid or ice is found, the Treatment Manager shall inform the Director of Mixed Waste Operations and either initiate a Condition Report in accordance with Reference 2.3, or use alternative treatment methods (such as solidification, etc.) as directed by the Director of Mixed Waste Operations.
- 4.2.4. Transfer the waste into the new containers according to the following:
- (1) For manual operations – may be used for small sizes, lightweight containers or small objects less than 50 lbs., manually lift and transfer material to new containers.
- (2) For equipment-assisted operations – required for large size objects, weights over 50 lbs. or waste material in oversize containers, use a forklift, slings or other appropriate equipment to lift and transfer material.
- 4.2.5. If waste is too large to fit into the new containers, the waste shall be sized into smaller pieces with methods approved by the Director of Mixed Waste Operations and Safety & Health Manager.

**NOTE:** At no time can any waste material be sawed or cut unless approved by the Safety & Health Manager. Cutting creates and releases lead dust into the air.

- 4.2.6. Record the generator number, waste stream number, bates number, date, and shift name on the outside of the new container next to the weight. Replace the lid on the container.
- 4.2.7. Operators shall notify a Health Physics Technician to perform a dose rate analysis and annotate the results on the labels of the container.
- 4.2.8. Record on Attachment 5.1, Overpack / Repack Operation Record, the Bates number(s), quantity of containers, and container type(s) of the original containers. Attachment 5.2, Container In Tracking Record, may be completed for individual containers.
- 4.2.9. Weigh the container with calibrated scales. Record the weight and new container type(s) on the Overpack / Repack Operation Record, Attachment 5.1.

**NOTE: Mixed Waste personnel involved in this operation are responsible for the completion of Attachment 5.1, Overpack/Repack Operation Record**

- 4.2.10. Move the container out of the download area and either return it to storage or stage for macroencapsulation, stabilization, VTD, or solidification.
- 4.2.11. The Overpack/Repack Operation Record (Attachment 5.1) and Container In Tracking Record (Attachment 5.2) are to be given to the appropriate supervisor for review of accuracy, completion and legibility.
- 4.2.12. The completed forms shall be turned over to the Tracker by noon the next operating day.

## 5. ATTACHMENTS AND FORMS

- 5.1. Overpack / Repack Operation Record, CL-MT-PR-101-F1 (EC98201) – Example
- 5.2. Container In Tracking Record, CL-MT-PR-101-F2 (EC98308) - Example

ATTACHMENT 1  
Overpack/Repack Operation RecordOverpack/Repack Operation Record (EC98201)  
Form CL-MT-PR-101-F1 Rev. 0

Date

PAGE \_\_\_\_ OF \_\_\_\_

Generator – Waste Stream

Repack #

N/A IF NOT APPLICABLE

EXISTING WASTE:											
BATES#	QYT #	CONT. TYPE	BATES#	QYT #	CONT. TYPE	BATES#	QYT #	CONT. TYPE	BATES#	QYT #	CONT. TYPE
1			11			21			31		
2			12			22			32		
3			13			23			33		
4			14			24			34		
5			15			25			35		
6			16			26			36		
7			17			27			37		
8			18			28			38		
9			19			29			39		
10			20			30			40		

OVERPACKED/REPACKED CONTAINERS:							
POUNDS	CONT. TYPE	POUNDS	CONT. TYPE	POUNDS	CONT. TYPE	POUNDS	CONT. TYPE
1		11		21		31	
2		12		22		32	
3		13		23		33	
4		14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

NOTES:

PRINT NAME

SIGNATURE &amp; DATE

SUPERVISOR REVIEW &amp; DATE



## Rev. 2

### Container In Tracking Record

Date: \_\_\_\_\_

Comments:

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