

# START

PLANT OPERATING PROCEDURE

SOLID WASTE

0029978

Operation

BURIAL AND WASTE

System

## DISPOSE OF FACILITY-GENERATED WASTE - 616 STORAGE FACILITY

### I. SYSTEM DESCRIPTION

This procedure provides instructions for safe handling and packaging of waste generated at the 616 Storage Facility. Waste generated at this facility consists of spill clean-up material and sump waste resulting from spills. Waste is collected or pumped into approved containers for disposal. Supervision will contact Solid Waste Engineering (SWE) for direction.

### II. PRESTART CONDITION

One or more of the following conditions exist:

- . a hazardous waste spill or leak has been controlled and/or stabilized
- . clean-up material is ready for disposal
- . hazardous waste is contained within a cell sump or trench.

Solid Waste Engineering (SWE) has been informed of chemical composition and source of waste.

Inform Solid Waste Operations supervision of all work performed at the 616 Facility except when doing:

- . outside housekeeping
- . office (clerical) work
- . work in the Packaging Material and Handling Equipment area
- . daily inspection of the facility.

The daily inspection has been performed per SW-100-124.



Release Date

8-29-90

Expiration

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### III. SAFETY

Warning - If chemical exposure is suspected, evacuate immediate area, contact supervision, and report to First Aid Station.

Symptoms of chemical exposure may include the following:

- . burning eyes
- . skin or nose irritation
- . nausea
- . dizziness
- . headache.

If waste chemicals contact the skin or eyes, perform the following:

- . flush eyes or skin with water for 15 min
- . remove any chemically contaminated clothing
- . report to the First Aid Station as soon as possible thereafter.

When handling hazardous waste containers, wear as a minimum:

- . Safety glasses
- . Leather or Chemical-resistant gloves
- . Tyvek Suits or equivalent
- . Approved safety shoes.

Wear a face shield and splash-resistant goggles when handling containers of questionable integrity containing bulk liquids.

When handling unused new containers, wear:

- . Safety glasses or goggles
- . Leather gloves
- . Approved safety shoes.

Before personnel can occupy the facility, the ventilation system must be in operation and the differential pressure between the office and storage cells must be less than zero. Failure of the ventilation system, in the event of a spill, could cause a build-up of toxic gases inside the facility.

Before conducting operations in the 616 Facility, make sure all eyewashes and safety showers are working. Ensure that equipment has been tested per WHC-CM-4-3, Vol. 1, Standards G-6 and G-11, and that pathways to safety showers and eyewashes are clear of obstructions.

Before moving a container within the facility, make a visual inspection of the immediate area to ensure the area is clear of obstacles and the trench gratings are in place. Failure to remove obstacles or replace gratings could result in dropping a waste container and causing personal injury and/or a spill.

III. SAFETY (Cont.)

Warning - Ensure that all trenches and sumps are covered at all times unless work requiring normal removal of covers or gratings is being conducted. Open trenches shall not be unattended unless area is roped off and warning signs are clearly posted. Open trenches shall be noted in the COMMENTS section of the DAILY INSPECTION DATA SHEET.

Solid Waste Engineering (SWE) and Industrial Safety and Fire Protection (IS&FP) group will provide Operations with specific instructions in the use of protective clothing/equipment, hazards involved, proper spill cleanup procedures and/or other recovery operations.

Caution - Store all containers in the designated areas according to the Special Handling Instructions of the Hazardous Waste Manifest or the Disposal Analysis Letter (See Storage Plan Diagram, Figure 1, SW-100-122.). Incompatible chemicals stored next to each other can cause serious chemical reactions if they mix during a spill.

Do not transmit from portable radios or use other devices (e.g., cigarettes, lighters etc.) that could cause sparks inside the flammable storage cells. Use nonsparking tools to minimize fire hazard.

The electric forklift is prohibited from operating in the class 1A flammable liquid storage cell.

Management Information - For leaking containers, supervision shall determine whether to contact the Hanford Fire Department Hazardous Material Response Team (HAZMAT) for assistance with spill containment and stabilization. Supervision will specify and coordinate necessary corrective actions for small leaks and other minor container abnormalities.

Contact the HAZMAT Team in the event of a ruptured container.

Applicable Safety Documents - All activities conducted at the 616 Facility must be in compliance with Industrial Safety Manual, WHC-CM-4-3, Vols. 1-3.

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III. SAFETY (Cont.)

Applicable Safety Documents - A working knowledge of the following documents is required by all operators working at the 616 Facility:

- . WHC-CM-4-3, Volumes 1-3
  - Guide FP-13, Flammable and Combustible Liquids
  - Guide M-5, Powered Industrial Trucks
  - Guide HC-1, Hazard Communications
  - Standard C-7, Chemical Storage and Handling
- . The Chemical Waste Disposal Analysis Letter, issued by Solid Waste Engineering (SWE), for chemical wastes received for storage at the 616 Facility
- . MATERIAL SAFETY DATA SHEETS
- . WHC-CM-5-7, Section 3.9, Equipment Lock and Tag.

IV. TOOLS AND SUPPLIES

Forklift Attachment for Lifting Drums  
Drum Dolly, Hand Truck and/or Powered Fork Truck  
Protective Clothing and Equipment  
Overpack Drums  
Unused DOT-Specification Drums  
Explosion-Proof Chemical Pump, Disposable Pump, Solvent Pump  
and/or Hand Pump  
pH Paper  
Absorbent Material (Kitty Litter, Safe Step)  
Ground Wires  
Nonsparking Tools  
WHC-CM-2-14, HAZARDOUS MATERIAL PACKAGING, SHIPPING AND  
TRANSPORTATION MANUAL

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VI. PROCEDURE

NOTE - Industrial Safety and Fire Protection (IS&FP) Group and/or SWE may provide additional instructions to complement the instructions provided in this procedure.

A. DISPOSE OF SPILL CLEAN-UP WASTE

NOTE - This task is to be performed after a spill has been contained and stabilized.

1. Request the following information from supervision as provided by IS&FP and SWE, respectively:
  - Protective clothing and equipment required (IS&FP)
  - Type of hazardous waste container needed for waste cleanup.
2. Put waste in waste container designated by SWE. Use nonsparking shovel or other nonsparking tools as designated by IS&FP and SWE when handling ignitable waste.
3. If protective clothing becomes contaminated, dispose of clothing in same container as waste was put in (if possible). If container is full, place the contaminated clothing into another container of the same type, as designated by SWE.
4. Rinse and/or clean all tools. Dispose of cleaning waste into same container as waste was put in (if possible). If container is full, place the contaminated clothing into another container of the same type, as designated by SWE.
5. When waste cleanup is complete, close and seal waste container.

NOTE - SWE will identify proper DOT shipping name and hazard class labels.

6. Obtain written documentation from SWE.

A. DISPOSE OF SPILL CLEAN-UP WASTE (Cont.)

7. Fill out HAZARDOUS WASTE label with permanent marker (see Figure 1). Affix label to waste container.
- a. Record proper DOT shipping name and UN or NA number.
  - b. Transfer the following information from the original container to the label:
    - Waste codes
    - Accumulation start date
    - Manifest document number (including page and item number)
    - Generator ID#, name, and address (if necessary).
  - c. Affix label to waste container.
8. Affix appropriate hazard class label(s) to the container as prescribed by SWE.

NOTE - Normally, the label(s) will be the same type used on the original leaking or spilled container.

9. Store waste container in the appropriate cell as prescribed by SWE (normally, same storage cell where spill occurred).
10. Update inventory sheet, WASTE PACKAGE LOCATION CHART to reflect new container and status of leaking or ruptured container. See Figure 3.
11. When the final documentation from SWE is received, inspect the container markings and labels to ensure they comply with it.
12. If the markings and/or labels do not comply with the documentation, notify supervision for corrective action.

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B. DISPOSE OF TRENCH AND SUMP WASTE

WARNING

DO NOT PUMP WASTES FROM DIFFERENT SUMPS INTO THE SAME COLLECTION CONTAINER. MIXING OF INCOMPATIBLE CHEMICALS CAN RESULT IN A VIOLENT REACTION AND HEAT GENERATION CAUSING SEVERE PERSONNEL INJURIES.

USE EXPLOSION-PROOF PUMPS OR MANUAL PUMPS WHEN PUMPING FLAMMABLE OR COMBUSTIBLE LIQUIDS OR WHEN PUMPING ANY LIQUID INSIDE THE FLAMMABLE LIQUIDS STORAGE CELL.

DO NOT OPERATE ELECTRIC FORKLIFT IN THE CLASS 1A FLAMMABLE LIQUID CELL.

USE NONSPARKING TOOLS FOR CLEANUP OF IGNITABLE WASTES.

FOR FLAMMABLE WASTES, CONNECT A GROUND WIRE TO METAL PART OF BUILDING THEN TO FLAMMABLE WASTE METAL CONTAINERS FROM WHICH AND INTO WHICH WASTE IS BEING PUMPED. FAILURE TO GROUND THE CONTAINER COULD RESULT IN AN EXPLOSION CAUSING INJURY TO PERSONNEL. USE ONLY NONSPARKING TOOLS AND EQUIPMENT.

Dispose of Spilled Liquid Waste

NOTE - SWE will provide appropriate instructions for packaging waste.

1. Obtain a DOT-approved drum or container to collect the spilled waste.
2. Wear protective equipment specified by Industrial Safety and Fire Protection (IS&FP) Group.
3. Using an electric or manual pump, transfer waste from sump or trench into specified waste container.

NOTE - When notified, SWE will prescribe appropriate solvent for flushing of nonwater-soluble waste.

4. Flush trench or sump with amount of water/solvent determined by SWE.

NOTE - The amount of flush water/solvent will vary depending on trench volume and waste type.

5. Pump flush solution into the waste container.
6. When waste cleanup is complete, close and seal waste container.

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B. DISPOSE OF TRENCH AND SUMP WASTE (Cont.)

7. Perform Task A, Steps 6-12, for labeling and drum storage before continuing.

Dispose of Undesignated Hazardous Waste

NOTE - This activity applies to waste that was collected in sumps or trenches and is known or suspected to be hazardous but whose characteristics are unknown.

8. Contact IS&FP and SWE and request instructions for appropriate protective clothing and type of container needed for collection.
9. Pump the liquid into the specified container.
10. Flush the sump or trench per Steps 4-5, then continue with Step 11.
11. Close and seal waste container.
12. Fill out and affix HAZARDOUS WASTE label (see Figure 1) to waste container per supervision's instructions.
  - a. Record accumulation start date.
  - b. Assign a manifest document number to container as follows: MANIFEST DOCUMENT NO. 616-SPILL-XX (XX is a sequential number starting at 01).
  - c. Write UNKNOWN on DOT shipping name line.
  - d. Record assigned manifest document number.
  - e. Affix label to waste container.
13. Affix appropriate hazard class label(s) to the container as prescribed by SWE.
14. Store waste container in the cell prescribed by SWE.
15. Update inventory sheet, WASTE PACKAGE LOCATION CHART, to reflect new container and status of leaking or ruptured container.

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B. DISPOSE OF TRENCH AND SUMP WASTE (Cont.)

16. Request supervision to complete and submit a CHEMICAL WASTE DISPOSAL REQUEST (see Figure 2).

NOTE - SWE will designate the waste to prescribe the appropriate DOT name and hazard class labels for the spill clean-up material.

- SWE may require a sample of the unknown waste be submitted to an analytical laboratory for hazardous constituents analysis.

17. When the disposal analysis from SWE is received, inspect the container markings and labels to ensure they comply with the disposal analysis.

18. If the markings and/or labels do not comply with the waste disposal analysis instructions, notify supervision for corrective action.

Dispose of Loading Docks Trench Waste

NOTE - Steps 19 through 26 apply only to rainwater collected in the loading dock trenches. These steps can only be performed when it is known that trenches did not contain a regulated waste prior to accumulation of rainwater.

- The loading pad trench drain plugs are kept locked closed. The facility supervisor controls the keys to the loading dock trench drains.

19. Remove grating from trench.

20. Visually inspect the liquid in the trench for signs of potential contamination (discoloration, oil sheen, etc).

21. Review Spill Log, daily inspection reports, Facility Log Book, and any other related documentation to identify waste releases on the pad with uncompleted cleanup actions.

NOTE - The facility supervisor and a Solid Waste Engineering representative will sign the Facility Log Book indicating that Steps 20 and 21 have been completed.

22. Request the facility supervisor to unlock the drain plug.

23. Remove drain plug.

24. After the trench has been completely drained, replace the plug and request the facility supervisor to lock the drain plug closed.

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B. DISPOSE OF TRENCH AND SUMP WASTE (Cont.)

25. Remove and dispose of any accumulated soil and debris in the trench.

26. Replace grating over trench.

NOTE - The facility supervisor and the Solid Waste Engineering representative sign the Facility Log Book indicating that the trench was drained and the drain plug is locked closed.

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PAGE AND ITEM NUMBER FROM MANIFEST

MANIFEST NUMBER

PAGE 1, ITEM A WMC-24-527

# HAZARDOUS WASTE

STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY AUTHORITY, AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

PROPER D.O.T. SHIPPING NAME WASTE ACID LIQUID, N.A.S. UN 1760

GENERATOR INFORMATION:  
 NAME U.S. DEPARTMENT OF ENERGY  
 ADDRESS P.O. BOX 550, 2401 STEVENS DR.  
 CITY RICHLAND STATE WA ZIP 99352  
 EPA ID NO. WA7890008967 EPA WASTE NO. D002, WTDZ  
 ACCUMULATION START DATE 9-22-86 MANIFEST DOCUMENT NO. \_\_\_\_\_

**HANDLE WITH CARE!**

CONTAINS HAZARDOUS OR TOXIC WASTES

STYLE WASPEC-P

RED BORDER AND LETTERING

YELLOW BACKGROUND

BLACK LETTERING

RED LETTERING

Printed by LABELMASTER, Div. of AMERICAN LABELMARK CO., CHICAGO, IL 60646

Ref: TKE-5089

FIGURE 1 - HAZARDOUS WASTE LABEL

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Complete unshaded parts and forward to: Hazardous Waste Unit R1-51 Westinghouse		<b>CHEMICAL WASTE DISPOSAL REQUEST</b>						Manifest No. _____			
		Generator Logbook No _____						Disposal Analysis Distribution*			
Requested By _____		Telephone No. _____		MSIN _____		Company _____		1. Generator 4. _____			
Signature/Date _____		Accumulation Date _____		Generating Facility _____				2. H.W.U. 5. _____			
								3. _____ 6. _____			
								* May be used by generator as needed			
<b>WASTE DESCRIPTION</b> (For additional items, continue on the back of this form)											
A Item No	B No of Containers	C Container Size	D Container Description	E Total Waste Quantity (kg)	F Waste Description	G Chemical Components	H Weight %	I Physical Properties	J Hazards	K Waste Status	L Container Status
Example 1	1	55 gal	DOT 17E	205	TURCO Decon 4512A Solution, 10% In Water	TURCO 4512A MSDS Attached Water	10.0 90.0	Liquid, pH < 2 Flash point > 200 °F	C	O	F
Example 2	1	5 gal	DOT 37M	34	Waste from Hg Cleanup	Mercury Rags Soil	1.3 4.0 94.7	Solid	EP	S	PF
Example 3	23	55 gal	Steel Drum	0	Empty Conoco 32 Oil Drums - Contained Used Oil	Oil-MSDS Attached PCB - Lab Data Attached	100.0 < 1 ppm	Liquid, pH = 8.2 Flash Point > 200 °F	None	U	MT

SAMPLE

**INSTRUCTIONS**

- Accumulation Date - List the accumulation date of the oldest waste
- Column A - Item Number - item number for each unique waste
- Column B - Number of Containers - Number of containers of a unique waste to be disposed
- Column C - Container Size - Size of containers specified in Column B. If multiple container sizes, specify number and size of each
- Column D - Container Description - Specify container's DOT specification. If non-DOT container or unknown specify type, e.g. steel drum.
- Column E - Total Waste Quantity - Total waste quantity (in kilograms only) of each unique waste to be disposed
- Column F - Waste Description - Specify trade name or general description of each unique waste. If waste material is a paint, specify color for evaluation of pigments
- Column G - Chemical Components - List all organic and inorganic components of the unique waste using specific chemical names. Attach Material Safety Data Sheets, analytical data, or other documents to adequately describe the composition of the waste.

- Column H - Weight (%) - For each waste component indicate percent or range of percents in which the component is present in the waste. Trace amounts of pesticides, herbicides, heavy metals and PCB's should be specified. Components must add up to 100% including water, earth, or other components. If a unit other than percent is used, indicate the unit. When possible, provide test results or other documentation to verify percentages.
- Column I - Physical Properties - Indicate whether Solid (S), Liquid (L), or Gas (G) or any combination of these phases, also indicate pH and flash point.
- Column J - Hazards - Indicate whether waste is Corrosive (C), Ignitable (I), Reactive (R), Toxic (T), Explosive (E), Persistent (P), EP Toxic (EP) or Carcinogenic (X)
- Column K - Waste Status - Indicate whether waste is: Reacted (Rx), Treated (T), New (N), Used (U), Old (or expired) (O), Spill Material (S)
- Column L - Container Status - Indicate whether container is: Full (F), Partially Full (PF), Empty (< 1/4 in. in 55 Gal Drums) (MT), Triple Rinsed (TR).

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FIGURE 2 - CHEMICAL WASTE DISPOSAL REQUEST



CELL:	DATE:	PAGE	OF			
Location:	Tier	Container No.	I.O. No.	Size & Type	Operator Initials	Date Rec' & Comments
1						
2						
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ORIGINAL FORM IS 8½ by 14

Comments:



FIGURE 3 - WASTE PACKAGE LOCATION CHART

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