

**SOLID WASTE**

**SYSTEM**

**PLANT OPERATING PROCEDURE**

**BURIAL AND WASTE**

0029976

START

**RECEIVE NONRADIOACTIVE DANGEROUS WASTE - 616 STORAGE FACILITY**

**I. SYSTEM DESCRIPTION**

This procedure provides instructions and guidelines for safely receiving nonradioactive dangerous waste at the Nonradioactive Dangerous Waste Storage Facility (NRDWSF - 616). The NRDWSF - 616 Facility receives dangerous waste from Hanford contractors for interim storage between generation and offsite disposal. The dangerous waste is prepared for offsite shipment and shipped to NRDWSF - 616 where it is segregated into compatible hazard classes and stored until it is shipped offsite.

**REFERENCE DOCUMENTS**

Washington Administrative Code 173-303, "Dangerous Waste Regulation".

Operating Specification Document SW-153-00004, Operating Specifications for the Nonradioactive Dangerous Waste Storage Facility (NRDWSF - 616).

**I. PRESTART CONDITION**

Inform Solid Waste Operations (SWO) supervision of all work performed at the NRDWSF - 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.

**IV. SAFETY**

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.



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## .v. SAFETY (Cont.)

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

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

Warning - When handling hazardous waste containers, wear as a minimum:

- safety glasses
- leather or chemical-resistant gloves
- tyvek suits or equivalent
- approved safety shoes.

Warning - 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. An exception to the negative differential pressure requirement can occur when windy conditions prevent the ventilation system from attaining a negative differential pressure. Notify supervision immediately if the differential pressure is positive. Failure of the ventilation system, in the event of a spill, could cause a build-up of toxic gases inside the facility.

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

All cell doors must be closed at all times, except during loading/unloading operations and when so authorized by supervision.

Before conducting operations in the NRDWSF - 616 Facility, make sure that all eyewashes and safety showers have been tested per WHC-CM-4-3, Industrial Safety Manual, 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.

The buddy system is required when working around or handling hazardous waste containers in the storage cells.

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## IV. SAFETY (Cont.)

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). Incompatible chemicals stored next to each other can cause serious chemical reactions if they mix during a spill.

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

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.

Management Information - UNIFORM HAZARDOUS WASTE MANIFESTS will be catalogued according to manifest number, e.g., 00001, 00002, 00110, 00111, and will be filed in sequential order.

Ensure transporter is wearing a similar level of protection to the following:

- safety glasses
- leather or Chemical-resistant gloves
- tyvek suits or equivalent
- approved safety shoes.

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. For small leaks and other minor container abnormalities, supervision will specify and coordinate necessary corrective actions.

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

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

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

- WHC-CM-4-3, Industrial Safety Manual, Volumes 1-3
  - Guide FP-13, Flammable and Combustible Liquids
  - Guide M-5, Powered Industrial Trucks
  - Guide HC-1, Hazard Communication
  - Standard C-7, Chemical Storage and Handling
- The Hazardous Waste Disposal Analysis Record (HWDAR), issued by Generator and Data Services (GADS), for chemical wastes received for storage at the NRDWSF - 616 Facility
- MATERIAL SAFETY DATA SHEETS
- WHC-CM-5-7, Section 3.9, Equipment Lock and Tag

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## V. TOOLS AND SUPPLIES

Barrel sling  
Drum Dolly, Hand Trucks and/or Powered Fork Truck  
Protective Clothing and Equipment  
Absorbent Material (Kitty Litter, Safe Step)  
Overpack Drums  
Chemical Waste Disposal Analysis Letter pertaining to waste being received  
Nonsparking Tools

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## VII. PROCEDURE

NOTE (1) - *Administrative hold steps are identified by acronyms in parenthesis at the left margin of the procedure step. The direction given in the procedure step must be satisfied before work continues.*

(S) - *The SWO supervisor or manager shall approve continued operation*

(H) - *Health Physics shall complete surveys or agree to permit continued operation.*

NOTE (2) - *The physical count of waste containers must be equal to the count designated on the associated manifest(s). An accurate account of the waste received at the NRDWSF - 616 Facility will be kept by the facility supervisor and will be readily available in the office of the facility.*

### A. RECEIVE CONTAINERS

NOTE - *All waste packages are required to be accompanied by a UNIFORM HAZARDOUS WASTE MANIFEST (MANIFEST). No waste material will be accepted at the NRDWSF - 616 Facility without the proper MANIFEST. Refer to the attached sample MANIFEST.*

[1] **ENSURE** that trench drain at the loading dock is plugged.

[2] **REQUEST** truck driver to perform the following:

- Place truck so that unloading section is over the loading pad containment area
- Turn off truck engine
- Put on truck emergency brake
- Chock truck wheels.

[3] **OBTAIN** the MANIFEST from the transporter.

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# SOLID WASTE PLANT OPERATING PROCEDURE

## A. RECEIVE CONTAINERS (Cont.)

[4] **VERIFY** that the following steps have been performed:

- MANIFEST is initialed by a representative of Westinghouse Transportation Logistics
- MANIFEST is signed and dated by the generator in Block 16
- MANIFEST is signed and dated by transporter in Block 17.
- A statement from the generator verifying that the waste packages are free of radioactive contamination.

*NOTE - If the container integrity is sound, it may be off-loaded from the truck and placed into the Receiving Area for MANIFEST to container inspection, when authorized by the facility supervisor. Ensure that incompatible waste containers are not place in adjacent locations.*

[5] **VERIFY** that wastes described on MANIFEST correspond with the description on the Disposal Analysis Letter.

[6] **REQUEST** truck driver to off-load the waste containers.

(S) [7] **INSPECT** the containers for the following. **IF** any defects or leaks are found, **NOTIFY** supervision immediately:

- damage
- leaks
- deterioration
- improper lid and bung closures
- improper sealing
- bulging
- deep creases
- severe corrosion.

*NOTE - Supervision shall issue a Hazardous Work Permit with instructions for correcting the problem and required personal protective equipment. Written record of these findings will be kept.*

[8] **VERIFY** that each container bears a radiological release sticker or was generated at a facility exempt from such requirements.

*NOTE - Other documentation may also be provided.*

- *A single radiological release sticker may be used for a number of waste containers if each container is identified on the sticker.*

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# SOLID WASTE PLANT OPERATING PROCEDURE

## A. RECEIVE CONTAINERS (Cont.)

[9] CHECK that material received is marked and labelled identically to the material described on the MANIFEST.

- (S) a. IF discrepancies are found, NOTIFY supervision.  
b. IF no discrepancies are found, CONTINUE the procedure.

[10] CHECK that the number of waste container(s) received is identical to the number of container(s) described on the MANIFEST.

- (S) a. IF the numbers are not identical, NOTIFY supervision.  
b. IF the numbers correspond, CONTINUE the procedure.

[11] CHECK that each container has a completed EPA HAZARDOUS WASTE sticker (if required). Reference Figure 1 for the information that must be on the sticker (there are several format variations).

- (S) a. IF the container does not have a sticker,  
OR  
the existing sticker does not meet format requirements, NOTIFY supervision.

b. IF the sticker is in compliance,

OR

no sticker is required, CONTINUE the procedure.

[12] CHECK that each container has the appropriate hazard class label(s), e.g., OXIDIZER, CORROSIVE, FLAMMABLE LIQUID, etc., according to the Waste Disposal Analysis Letter (see Figure 2).

- (S) a. IF no label exists or the container is improperly labelled, NOTIFY supervision.  
b. IF the label is in compliance, CONTINUE the procedure.

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# SOLID WASTE PLANT OPERATING PROCEDURE

## A. RECEIVE CONTAINERS (Cont.)

[13] **CHECK** that each container has the appropriate risk identification markings. Container must be marked as follows:

For Waste With Codes

WT01, WT02  
WC01, WC02  
WP01, WP02, WP03

The Container Must Be Marked

"TOXIC"  
"CARCINOGENIC"  
"PERSISTENT"

- (S)
- a. IF risk markings are not in place, **NOTIFY** supervision.
  - b. IF container is appropriately marked, **CONTINUE** the procedure.

### CAUTION

STORE ALL CONTAINERS IN THE DESIGNATED AREAS ACCORDING TO THE SPECIAL HANDLING INSTRUCTIONS OF THE DISPOSAL ANALYSIS LETTER (SEE STORAGE PLAN DIAGRAM). INCOMPATIBLE HAZARDOUS WASTE STORED NEXT TO EACH OTHER CAN CAUSE SERIOUS CHEMICAL REACTIONS IF THEY MIX DURING A SPILL.

[14] Once the container has been accepted, **TAG** the top of the container using the colored tags which correspond to cell storage location. See attachment.

**NOTE** - *Hazardous waste is designated to the proper storage cell according to the following criteria:*

- *Ignitable liquids with a flash point below 73° F and a boiling point below 100° F or (37.8° C) will be stored in the Class 1A Flammable Liquid Storage Cell*
- *Ignitable liquids with a flash point below 73° F and a boiling point at or above 100° F or (37.8° C) will be stored in the Class 1B Flammable Liquid Storage Cell*
- *Ignitable liquids with a flash point at or between 73-100° F will be stored in the Class 1B Flammable Liquid Storage Cell*
- *Combustible liquids with a flashpoint above 140° and below 200° F will be stored in the combustible liquid storage cell.*
- *Substances, either solid or liquid, that yield oxygen readily to stimulate the combustion of organic matter are classified as oxidizers and will be stored in the Oxidizers Storage Cell*

# SOLID WASTE PLANT OPERATING PROCEDURE

## A. RECEIVE CONTAINERS (Cont.)

- *Basic substances, either solid or liquid, with a pH greater than 12.5, that cause visible destruction or irreversible alterations in human skin tissue at the site of contact, or a liquid that has severe corrosion rate on steel, will be stored in the Caustics Storage Cell*
- *Acidic substances, either solid or liquid, with a pH less than 2, that cause visible destruction or irreversible alterations in human skin tissue at the site of contact, or a liquid that has severe corrosion rate on steel, will be stored in the Acid Storage Cell.*
- *Waste which reacts with water to vigorously generate heat and gas will be stored in cabinets in either the 1A or 1B flammable cells.*

## B. STORE CONTAINERS

### WARNING

WEAR SAFETY GOGGLES, FACE SHIELD, CHEMICAL-RESISTANT GLOVES, APPROVED SAFETY SHOES, AND TYVEK SUITS OR EQUIVALENT WHEN APPROPRIATE.

INSPECT AISLE FOR OBSTRUCTIONS, UNCOVERED TRENCHES, OR ANY OTHER POTENTIAL HAZARDS BEFORE MOVING DRUMS THROUGHOUT THE FACILITY.

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

### CAUTION

DO NOT EXCEED STORAGE LIMIT FOR CLASS IV OXIDIZERS. IN THIS FACILITY, STORAGE LIMIT IS 10 LB AT ANY GIVEN TIME.

- [1] **MOVE** containers, using a drum dolly, hand truck and/or powered fork truck, to the appropriate storage cell indicated on the colored tag affixed to the top of the container. Refer to STORAGE PLAN DIAGRAM.

*OSL Storage space between rows and tiers of containers shall be at least 30 inches.*

- [2] **MAINTAIN** an aisle space of 36 inches between rows of drums to permit rapid personnel exit from the building if evacuation is necessary.
- [4] **CLOSE** cell doors when finished.

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## B. STORE CONTAINERS (cont.)

[5] **DISTRIBUTE** completed MANIFEST.

*NOTE - Supervision (or their delegate) will sign and date the MANIFEST in Block 20 as the facility operator and update the Waste Package Location Chart. See Figure 4.*

[6] **AFTER** the facility waste inventory has been updated to reflect changes made (i.e., drums moved, containers added, etc.), **OBTAIN** current inventory listing.

[7] **ENSURE** accuracy of container location/placement, hazard class, proper shipping name, DOT ID# and waste codes.

*NOTE - At the end of each day of operation, supervision will ensure that the Hanford Fire Department is cognizant of the facility waste inventory.*

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# SOLID WASTE PLANT OPERATING PROCEDURE

Please print or type. (Form designed for use on site (12-pitch) typewriter.)

Form Approved OMB No. 2050-0002 Expires 9-30-97

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.	
GENERATOR	3. Generator's Name and Mailing Address			A. State Manifest Document Number		
	4. Generator's Phone ( )			B. State Generator's ID		
	5. Transporter 1 Company Name		6. US EPA ID Number	C. State Transporter's ID		
	7. Transporter 2 Company Name		8. US EPA ID Number	D. Transporter's Phone		
	9. Designated Facility Name and Site Address		10. US EPA ID Number	E. State Transporter's ID		
TRANSPORTER				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone		
	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
	a.					
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above			K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information						
<p>16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.</p> <p>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and used the best waste management method that is available to me and that I can afford.</p>						
Printed/Typed Name			Signature		Month Day Year	
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name			Signature		Month Day Year	
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name			Signature		Month Day Year	

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EPA Form 8700-12 (Rev. 9-88) Previous editions are obsolete.

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# SOLID WASTE PLANT OPERATING PROCEDURE

FIGURE 1 - HAZARDOUS WASTE LABEL

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PAGE AND ITEM NUMBER FROM MANIFEST      MANIFEST NUMBER

PAGE 1, ITEM A      00000 (1)

## 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: \_\_\_\_\_ UN 0000

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. \_\_\_\_\_  
ACCUMULATION START DATE \_\_\_\_\_ MANIFEST DOCUMENT NO. \_\_\_\_\_

### HANDLE WITH CARE!

CONTAINS HAZARDOUS OR TOXIC WASTES

STYLE 11000000

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# SOLID WASTE PLANT OPERATING PROCEDURE

## FIGURE 2 - HAZARD CLASS LABELS



CORROSIVE LABEL  
4" x 4"  
TOP-BLACK ON WHITE  
BOTTOM-WHITE ON BLACK



OXIDIZER LABEL  
4" x 4"  
BLACK ON YELLOW



IRRITANT LABEL  
4" x 4"  
RED ON WHITE



POISON LABEL  
4" x 4"  
BLACK ON WHITE



DANGEROUS WHEN WET  
4" x 4"  
WHITE ON BLUE



FLAMMABLE LIQUID  
4" x 4"  
WHITE ON RED

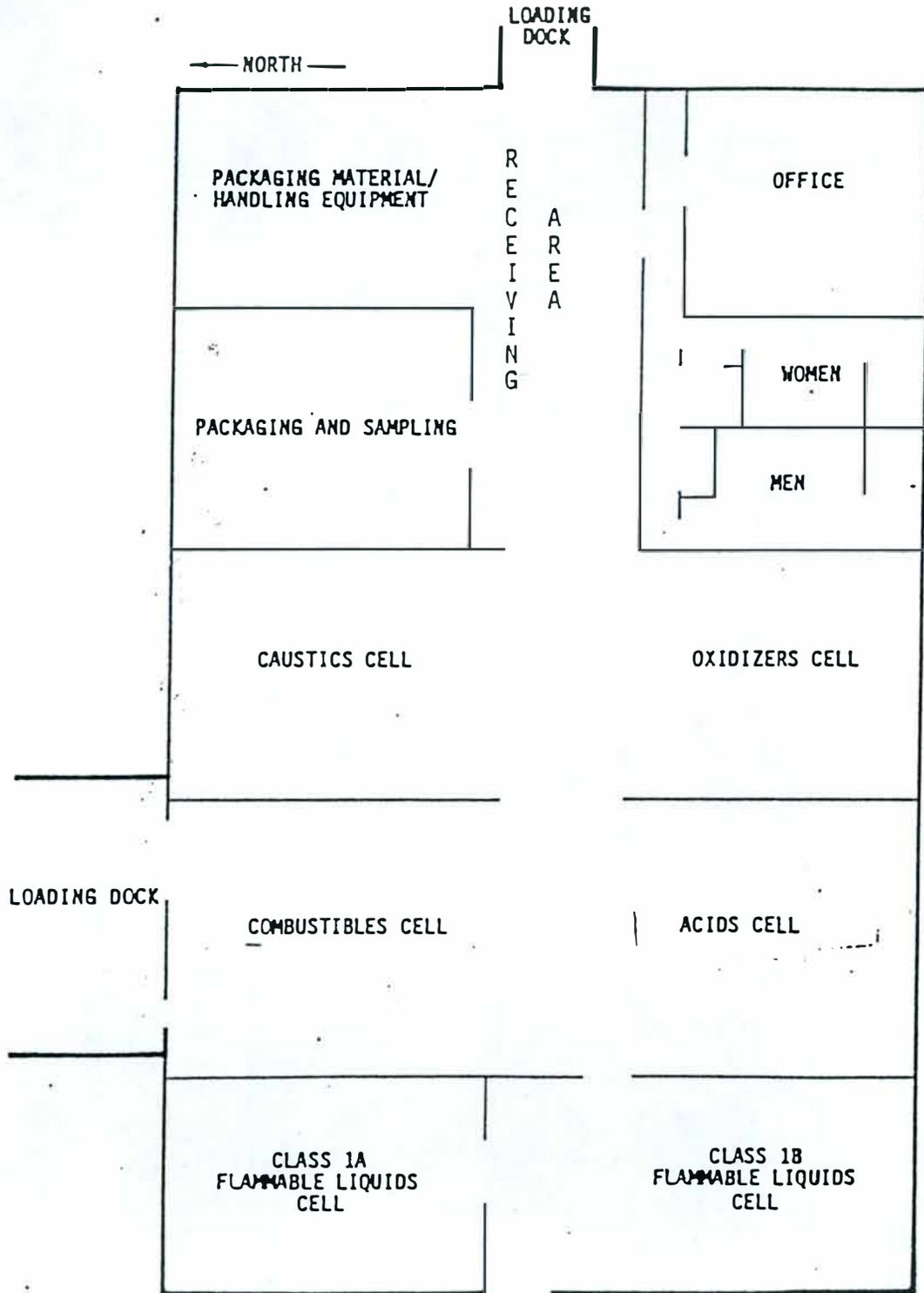


FLAMMABLE SOLID  
4" x 4"  
BLACK ON RED AND  
WHITE STRIPES

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# SOLID WASTE PLANT OPERATING PROCEDURE

## FIGURE 3 - STORAGE PLAN DIAGRAM



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# SOLID WASTE PLANT OPERATING PROCEDURE

## FIGURE 4 - WASTE PACKAGE LOCATION CHART



WASTE PACKAGE  
LOCATION CHART



Nonradioactive Dangerous Waste Facility - 616 Bldg.



CELL:	DATE:	PAGE	OF	Location:	Tier	Container No.	I.D. No.	Size & Type	Operator Initials	Date Rec' & Comments
1										
2										
3										
4										
5										
6										
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ORIGINAL FORM IS 03 by 14

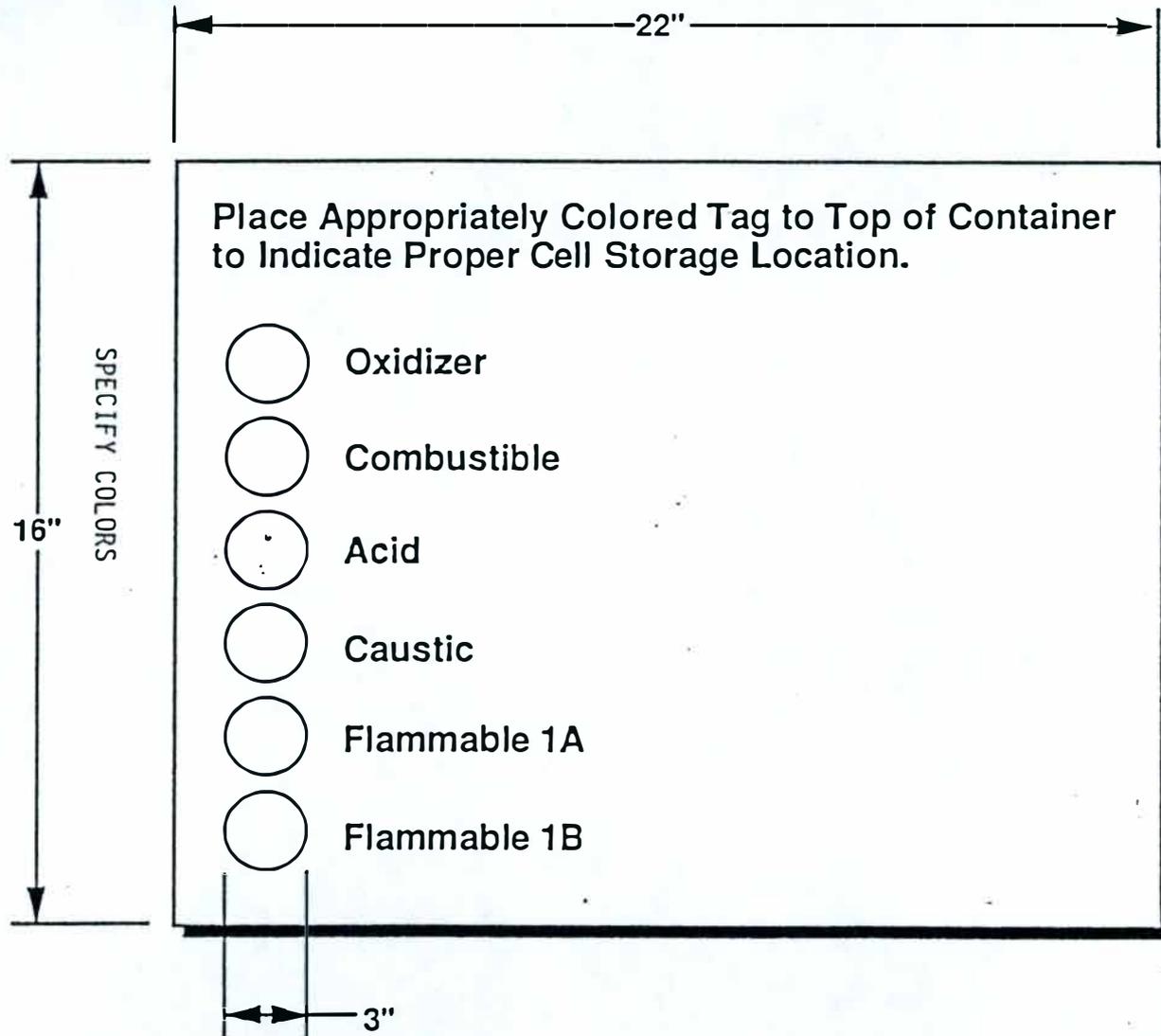


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# SOLID WASTE PLANT OPERATING PROCEDURE

FIGURE 5 - COLORED TAG

Dimensions of Sign Approximate



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