



NJ Department of  
Environmental Protection



# Understanding New Jersey's Universal Waste Rules

Bureau of Hazardous Waste  
& UST Compliance and  
Enforcement

Martin E. Sánchez

# Topics to be Covered

- What is Universal Waste?
- Waste streams regulated under the Universal Waste Rule (UWR)?
- Requirements for Universal Waste Handlers
- Best Management Practices





# What is Universal Waste?

- Universal Waste (UW) is a specific, generally a hazardous waste stream, that the US EPA and states designated by rule to be a UW.
- Allows for alternative management options for these specific hazardous waste streams.
- Only the waste streams identified in the UWR may be managed as UW.

# Why Universal Waste?

## EPA Criteria

- Generated in similar quantities by businesses, industry and consumers.
- Found in the municipal solid waste stream.
- Routinely fails the hazardous waste test.
- Negatively impacts solid waste operations.
- When properly managed, presents low risk in the collection, storage & transportation.





# Universal Waste Rule



- **US EPA** - adopted in 1994 under RCRA and can be found in 40 CFR part 273.
- **NJ** - adopted in 1996 under the SW Recycling Regulations and can be found in N.J.A.C. 7:26A-7 et. seq.
- Each state may choose to adopt additional waste streams provided it meets EPA's criteria.

# Management of UW



- UW does **NOT** have to be stored in a designated hazardous waste accumulation/storage area.
- UW is **NOT** counted towards the monthly hazardous waste generation amounts.
- UW does **NOT** have to be transported by a licensed hazardous waste transporter using a hazardous waste manifest.

# EPA (Federal) & NJ Listed UW

## **Federal Listed UW**

- Batteries
- Mercury Containing Devices
- Pesticides
- Hazardous Lamps

## **NJ Listed UW**

- Consumer Electronics
- Oil-based Finishes



# NJ's Recycling Regulations

- Class A Recyclable Material
  - Curbside recyclables (glass, paper, plastic)
- Class B Recyclable Material
  - Construction materials (concrete, wood, tires)
- Class C Recyclable Material
  - Compostable Material
- Class D Recyclable Material
  - Used oil and Universal Waste





# Types of UW - Definitions

- **Batteries** - device consisting of one or more electrically connected electrochemical cells that is designed to receive, store and deliver electric energy.



# Types of UW – Definitions cont.

- **Mercury Containing Equipment** - product component that uses elemental mercury, sealed in an ampule or other container, as a functional component. (i.e. mercury switches, thermometers & thermostats)



# Types of UW – Definitions cont.

- **Lamps** - bulb or tube portion of an electric lighting device. (i.e. fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium & metal halide lamps.



# Types of UW – Definitions cont.

- **Pesticides** – Spent and/or any unused pesticides destined for disposal.



# Types of UW – Definitions cont.

- **Consumer Electronics** - appliance used in the home or business that includes circuitry. (i.e. components & subassemblies of the electronic products including computers, printers, copiers, VCRs & televisions.



## Types of UW – Definitions cont.

- Non-Hazardous Consumer Electronics –
  - If classified as non-hazardous, the consumer electronics can be managed as **Solid Waste** or **Universal Waste**.

# Types of UW – Definitions cont.

- **Oil-based Finishes**- paint or other finish that may exhibit a hazardous waste characteristic or contains a listed hazardous waste. Must be in original packaging. (i.e. oil-based paints, lacquers, stains and aerosol paint cans)



# Types of UW – Definitions cont.

## ○ LATEX PAINT

- Is classified as a non-hazardous, therefore is NOT a Universal Waste.
- Can be managed as a Class D Recyclable material provided the management requirements for oil-based finishes are followed.





# What is a UW Handler?

- A generator of universal waste or
- The owner or operator of a facility that receives UW from other UW handlers, accumulates UW **and** ships UW to another UW handler, to a destination facility or to a foreign destination.
- Two types of UW Handlers: Small Quantity and Large Quantity

# Types of UW Handlers

- **Small Quantity Handler –**

Accumulates **less than** 11,000 lbs. (5,000 kg.) of UW (combined) at any given time.

- **Large Quantity Handler –**

Accumulates **more than** 11,000 lbs. (5,000 kg.) of UW (combined) at any given time.

# Requirements for UW Handlers

- All UW Handlers must:
  - ✓ Label/mark UW containers / materials properly
  - ✓ Accumulate UW within one year
  - ✓ Maintain records to prove material was accumulated within one year.
  - ✓ Ship off-site UW to another handler or a destination facility

# Requirements for UW Handlers

- All UW Handlers cont.
  - ✓ Contain and clean-up all UW releases/spills
  - ✓ Determine resulting release/spill is a hazardous waste and manage appropriately.
  - ✓ May export UW to foreign destinations and comply with portions of 40 CFR 262 Subpart E – Exports of Hazardous Waste

# Requirements for UW Handlers

## ○ **SMALL QUANTITY HANDLER**

- Limited processing allowed:
  - ✓ Removal of mercury ampules from mercury containing devices.
  - ✓ Demanufacturing of consumer electronics allowed.
- Inform employees of proper handling and emergency procedure

# Requirements for UW Handlers

## ○ **LARGE QUANTITY HANDLERS**

- Notify the Department of UW handling activities by obtaining EPA ID number.
- Limited processing allowed:
  - ✓ Removal of mercury ampules from mercury containing devices.
- Oil based paints – open containers for repackaging purposes only. No processing allowed (filtering, blending or tinting).

# Requirements for UW Handlers

## ○ **LARGE QUANTITY HANDLERS**

- Consumer Electronics - No disassembling (“de-manufacturing”) or processing activities allowed unless approved by Department (Class D facility permit).
  - ✓ Processing activities include crushing, shredding or thermal altering.
  - ✓ Degaussing and puncturing activities allowed.

# Requirements for UW Handlers

- **LARGE QUANTITY HANDLERS cont.**
  - Example of a Punctured Hard Drive





# Requirements for UW Handlers

- **LARGE QUANTITY HANDLERS cont.**
  - Example of a Shredded Hard Drive



# Reporting Requirements



	<b>US EPA ID NUMBER</b>	<b>NJDEP NOTIFICATION</b>	<b>ANNUAL FACILITY REPORT</b>	<b>ANNUAL TONNAGE REPORT</b>
<b>SMALL QUANTITY HANDLER</b>	NO	NO	NO	NO
<b>LARGE QUANTITY HANDLER</b>	YES	YES	YES	NO

## Reporting Requirements cont..

- **ANNUAL FACILITY REPORT** (N.J.A.C. 7:26A-7.5) – required for LQ Handlers ONLY.
  - Report must include:
    - ✓ Type of UW
    - ✓ Amount – Stored, received & shipped
  - Report submitted to Department by March 1<sup>st</sup> for previous years UW
  - Sent in letter form to NJDEP UW Program

# Management of UW

- **UW Transporters**

A person engaged in the off-site transportation of UW by air, rail, highway or water.

- **UW Destination Facility**

Either a hazardous waste (RCRA) Treatment, Storage & Disposal facility or Class D Recycling facility.

# Fluorescent Lamps Crushing Devices



- Fluorescent lamps are UW only when managed whole/intact (includes “incidental breakage”).
- Lamps that are purposely crushed in a lamp (bulb) crushing device are **NO LONGER** considered as UW, and are fully regulated as Hazardous Waste.
- Lamp Drum Top Crushing (DTC) machines release Mercury in the air.

# Fluorescent Lamps Crushing Devices

- DTCs and other bulb crushing devices require an Air Pollution Control permit from the Department. See **N.J.A.C. 7:27-8.2(c)(17)**
- Containers holding the crushed lamps must be managed as a hazardous waste.

**HAZARDOUS WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.  
IF FOUND CONTACT THE NEAREST POLICE OR PUBLIC SAFETY  
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION

NAME \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

CITY \_\_\_\_\_

EPA HAZARDOUS WASTE ID NO. / DOCUMENT NO. \_\_\_\_\_

ACQUISITION START DATE \_\_\_\_\_ EPA WASTE NO. \_\_\_\_\_

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

**HANDLE WITH CARE!**

# Fluorescent Lamps Crushing Devices

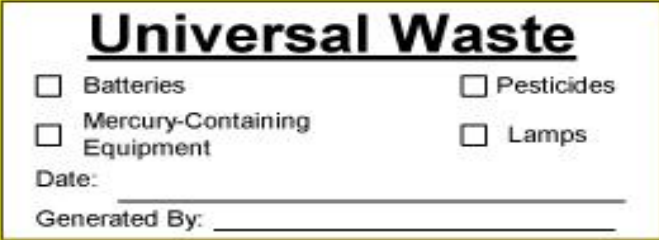
- Proper use of DTCs must include at a minimum:
  - ✓ Segregated Operations
  - ✓ Employee Training & Notification Procedures
  - ✓ Protective Equipment for Operators of DTCs
  - ✓ Mercury Emission Monitoring
  - ✓ Operational Log

# UW Destination Facilities

- Regulated as either a RCRA TSDF if conducting treatment of UW or a Class D Recycling center if conducting recycling activities.
- Class D Recycling center - must obtain from the Department an approval to conduct recycling activities (processing).
- Recycling activities include:
  - ✓ Demanufacturing of Consumer electronics
  - ✓ Crushing UW Lamps or computer monitors (CRTs)
  - ✓ Mixing & screening of UW – oil based paints
  - ✓ Recovery of Mercury from UW – Mercury containing devices.



# UW Labeling / Marking



**Universal Waste**

Batteries  Pesticides

Mercury-Containing Equipment  Lamps

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

Generated By: \_\_\_\_\_

- Handlers and Destination facilities must label and/or mark UW containers or items properly.
  - ✓ i.e. “Universal Waste – Lamps” or “Waste Lamps” or “Used Lamps”
- Markings must be visible, legible and clear.
- Recommended – Accumulation start date.
- Pesticides – original label must remain affix along with the UW marking “Universal Waste – Pesticide” or “Waste Pesticide”

# Transportation Requirements



- Transported in accordance with the US Dept. of Transportation (USDOT) requirements: Packaging, labeling, marking, placarding and preparing shipping papers. <http://phmsa.dot.gov/hazmat>
- UW sent to a Class D Recycling Center or Handler do **NOT** have to be transported by NJ Licensed SW/HW Transporter.
- UW sent to a RCRA TSDF **must** be transported by NJ Licensed SW/HW Transporter.

# Best Management Practices - Guide

- **Planning:** Several options include - Mail-in boxes, Contract recycling, Pickup & recycle services and Household hazardous waste collections.
- **Designating Accumulation area:** Suitable location – Ample room/space, away from high traffic areas, protected from falling objects & secure from vandalism.
- **Signs:** Clearly stating “UNIVERSAL WASTE” and/or warning signs such as: “Do not stack boxes on this rack” and “Handle boxes with care”.
- **Training Employees:** Proper handling of the universal waste including containerizing (choosing the right container), labeling, & responding to spills (i.e. broken lamps).
- **Retaining Records** – shipping documents, training records, and inspection records

# Summary

- UW are still hazardous waste, subject to reduced management requirements.
- UW in NJ: batteries, pesticides, mercury containing devices, hazardous waste lamps, consumer electronics & oil-based finishes.
- Crushed lamps are no longer UW, must be managed as hazardous waste.
- UW Handlers – generators & accumulators of UW
- Recyclers of UW are regulated as Class D Recycling centers.
- Develop a Best Management Practice for your facility using UW rules as your guide.