



NJ Department of
Environmental Protection



Understanding New Jersey's Universal Waste Rules

Bureau of Hazardous Waste
& UST Compliance and
Enforcement

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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).

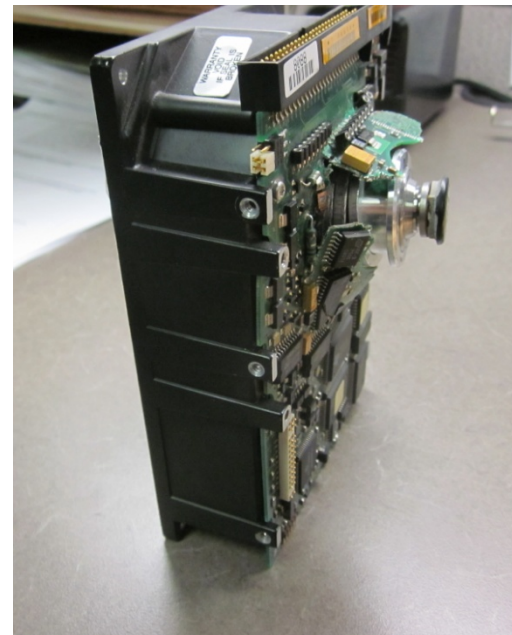
Requirements for UW Handlers

○ 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.

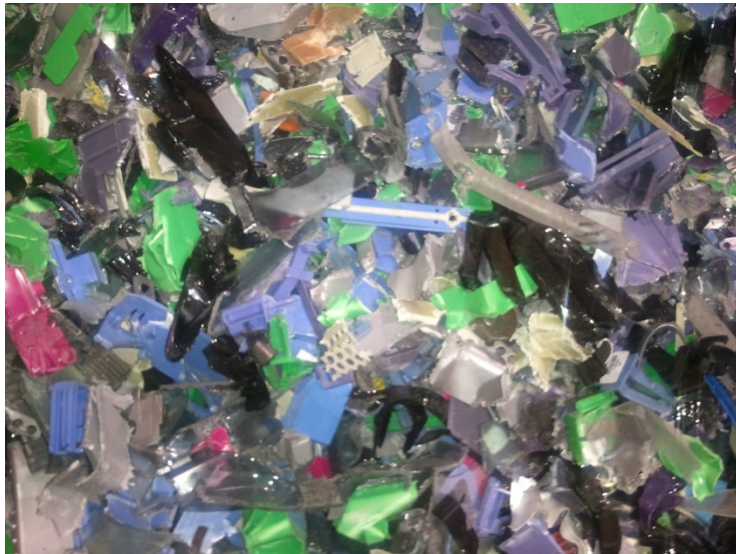
Requirements for UW Handlers

- **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



	US EPA ID NUMBER	NJDEP NOTIFICATION	ANNUAL FACILITY REPORT	ANNUAL TONNAGE REPORT
SMALL QUANTITY HANDLER	NO	NO	NO	NO
LARGE QUANTITY HANDLER	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 1st 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 _____ STATE _____ ZIP _____
EPA MANIFEST
ID NO. / DOCUMENT NO. _____ / _____
ACCUMULATION 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

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> Batteries | <input type="checkbox"/> Pesticides |
| <input type="checkbox"/> Mercury-Containing Equipment | <input type="checkbox"/> 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.