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
- Electronics Waste Management Act (E-Waste Law)
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 HANDLE**
  - 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

<table>
<thead>
<tr>
<th>Small Quantity Handler</th>
<th>US EPA ID Number</th>
<th>NJ DEP Notification</th>
<th>Annual Facility Report</th>
<th>Annual Tonnage Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Large Quantity Handler</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
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 NJ DEP 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.
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

- Handlers and Destination facilities must label and/or mark wastes 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 affixed 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](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.
Electronics Waste Management Act

- E-Waste: discarded computers and other consumer electronics including items like laptops, personal computers, televisions and cell phones.
- Applies to consumers & small businesses with fewer than 50 full-time employees.
- For more information: http://www.state.nj.us/dep/dshw/ewaste/
**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
- Large Quantity Handlers (>11,000 lbs.) have more regulatory requirements than Small Quantity Handlers.
- Recyclers of UW are regulated as Class D Recycling centers.