

# Understanding New Jersey's Universal Waste Rules

New Jersey

Department of Environmental Protection  
Solid and Hazardous Waste Management  
Program

Ralph Asplen, Principal Environmental Specialist

June 16, 2010



# Topics to be Covered



- ◆ **What is Universal Waste?**
- ◆ **Wastestreams regulated under UWR**
- ◆ **Requirements for UW Handlers**

# What is Universal Waste?

- ◆ Universal Waste is a specific, generally **hazardous** waste stream that has been designated by EPA or a state as universal waste
- ◆ Provides alternative management options for these specific hazardous waste streams
- ◆ Only those waste streams identified in the Universal Waste Rule (UWR) may be managed as universal waste

# EPA Criteria for Universal Waste

- ◆ Generated in similar quantities by businesses, industry, and consumers.
- ◆ Found in municipal solid waste stream
- ◆ Routinely fails hazardous waste test
- ◆ Negatively impacts solid waste facility operations
- ◆ Presents low risk in collection, storage, and transportation when properly managed

# Universal Waste Rule

- ◆ First adopted by EPA in 1994 under RCRA (40 C.F.R. Part 273)
- ◆ First adopted by NJ in 1996 under the Recycling Regulations (NJAC 7:26A)
- ◆ Each state may choose to adopt additional waste streams as universal waste provided it meets EPA's criteria

# Management of Universal Waste

- ◆ Universal Wastes **do not** have to be stored in a hazardous waste 90-day accumulation area
- ◆ Universal Wastes **do not** count toward hazardous waste generation amounts
- ◆ Universal Wastes **do not** have to be transported by a hazardous waste transporter using a hazardous waste manifest

# Federal and State Listed UW

## Federal UW:

- ◆ Batteries
- ◆ Mercury-containing Devices (includes Thermostats)
- ◆ Pesticides
- ◆ Hazardous Waste Lamps (fluorescent bulbs)

## Additional NJ State UW:

- ◆ Consumer Electronics
- ◆ Oil-based finishes

# New Jersey'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

# Definitions

## ◆ Batteries

- means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy.

## ◆ Mercury-containing Equipment

- Any product component which uses elemental mercury, sealed in an ampule or other container, as a functional component. Examples include mercury switches, thermometers and thermostats.

# Definitions (cont.)

- ◆ Hazardous Waste Lamps
  - The bulb or tube portion of an electric lighting device. Examples of common universal waste lamps include fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.
- ◆ Pesticides
  - Spent pesticides, any unused pesticides destined for disposal

# Definitions (cont.)

## ◆ Consumer electronics

- Any appliance used in the home or business that includes circuitry. Includes components and subassemblies of the electronic products. Examples include computers, printers, copiers, VCRs, televisions.

## ◆ Oil-based finishes

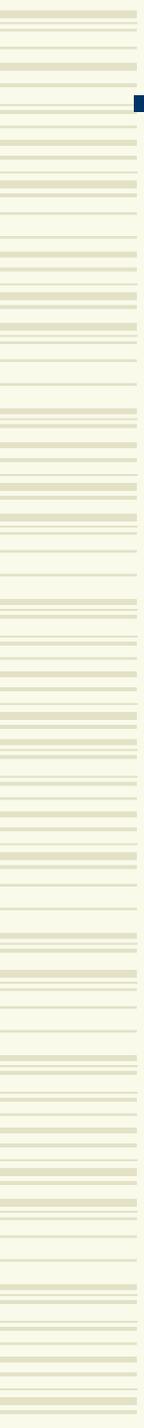
- Any paint or other finish which may exhibit a hazardous waste characteristic or contains a listed hazardous waste. Must be in original packaging. Examples include oil-based paints, lacquers, stains, and aerosol paint cans.

# Non-Hazardous Waste Consumer Electronics

- ◆ If electronic equipment is classified as non-hazardous waste, it may be managed under the Solid Waste Regulations.

**or**

- ◆ Non-hazardous waste electronics may be managed as a Universal Waste.



# Latex Paint



- ◆ Latex paint is usually a non-hazardous waste and therefore cannot be a universal waste.
- ◆ Latex paint may be managed as a Class D recyclable material provided the management requirements for oil-based finishes are followed.

# Universal Waste Handlers

- ◆ A generator of universal waste, or
- ◆ The owner or operator of a facility that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

# Universal Waste Handlers (cont'd)

Two categories of Universal Waste Handlers:

- ◆ **Small Quantity Handlers** - Accumulate less than 5,000 kilograms (11,000 lbs) of universal waste (combined) at any given time
- ◆ **Large Quantity Handlers** - Accumulate more than 5,000 kilograms (11,000 lbs) of universal waste (combined) at any given time

# Universal Waste Handlers (cont'd)

- ◆ Requirements for **All** Handlers
  - All universal waste must be labeled
  - Cannot be accumulated for longer than one year
    - Must maintain records to prove material has been accumulated for less than one year
  - UW must be sent to another handler or a destination facility

# Universal Waste Handlers (cont'd)

- ◆ Requirements for **All** Handlers (cont'd)
  - Must contain all releases of universal wastes
    - Must determine if any material resulting from a release is a hazardous waste and manage appropriately
  - May export materials to foreign destinations but must comply with portions of 40 CFR 262 Subpart E - Exports of Hazardous Waste

# Universal Waste Handlers (cont'd)

## ◆ Small Quantity Handlers

- Limited processing allowed:
  - Removal of mercury ampules from mercury-containing devices allowed with restrictions
  - Demanufacturing of consumer electronics allowed
- Must inform employees of proper handling and emergency procedures

# Universal Waste Handlers (cont'd)

## ◆ Large Quantity Handlers

- Must notify the Department of activities and obtain an EPA ID# for universal waste handling
- Limited processing allowed
  - May remove mercury ampules from mercury-containing devices with restrictions
- Must ensure all employees are thoroughly familiar with proper handling and emergency procedures
- May open containers of oil-based finishes for consolidation, but not permitted to filter, blend, tint, etc.\*

\*Now allowed under new rule

# Universal Waste Handlers (cont'd)

- ◆ Large Quantity Handlers (cont.)
  - May not demanufacture electronics
  - Must maintain records of receipt of material and shipments off-site
    - May be a log, invoice, manifest, bill of lading, or other shipping document
    - Must include name and address of originating handler or destination facility, quantity and type of material and date of receipt or shipment
  - Must retain records on-site for at least three years

# Universal Waste Handlers Reporting Requirements

	USEPA ID #	Notify NJDEP	Annual Facility Report	Annual Tonnage Report
Small Quantity Handler	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO*</b>
Large Quantity Handler	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>NO*</b>

\* New rules

# Universal Waste Handlers Reporting Req. (cont'd)

- ◆ **Annual Facility Report - NJAC 7:26A-7.5(e):**
  - Required For Large Quantity Handlers
  - Type and Amount of UW Material received, stored and shipped
  - Report made by March 1<sup>st</sup> for previous year – can be in letter form
  - Sent to Universal Waste Program

# Management of Universal Waste

## ◆ **Universal Waste Transporters**

- a person engaged in the off-site transportation of universal waste by air, rail, highway, or water

## ◆ **Universal Waste Destination Facility**

- either a RCRA treatment, storage, and disposal facility (TSDF) or a Class D recycling center

# Managing Lamps With a Bulb Crusher

- ◆ Fluorescent lamps are a Universal Waste only when managed whole (includes “incidental breakage”)
- ◆ Lamps that are processed by a bulb crushing machine are **NO LONGER** classified as Universal Waste, and can be considered fully regulated Hazardous Waste if crushed

# Managing Lamps With a Bulb Crusher (cont'd)

- ◆ **All bulb Drum Top Crushing (DTC) machines release Mercury into the air -- and your facility**
- ◆ **Bulb crushing machines require an Air Pollution permit from NJDEP**
  - Air Regulation N.J.A.C. 7:27-8.2 (c) 17
  - Current fee is \$1,500.00
- ◆ **Drums of crushed bulbs are to be managed as hazardous waste**

# Managing Lamps With a Bulb Crusher (cont'd)

- ◆ Proper use of DTCs should include at minimum:
  - Segregated Operations
  - Employee Training and Notification Procedures
  - Protective Equipment for Employees Operating DTC
  - Monitoring of Mercury Emissions
  - Log of Operations

# Universal Waste Destination Facilities

- ◆ Regulated as either a RCRA TSDF if treating or disposing of waste or a Class D recycling center if recycling the waste
- ◆ Recyclers must obtain a Class D recycling center approval to recycle (process) universal waste
- ◆ Examples of recycling:
  - Demanufacturing consumer electronics
  - Crushing hazardous waste lamps or computer monitors
  - Mixing and screening of paint and finishes
  - Recovery of mercury from mercury switches

# Labeling Universal Wastes

- ◆ **Handlers and Destination Facilities must label wastes**
  - Class D Facilities must also label as “Class D Recyclable Material”
- ◆ **Label must be clear, legible, and easily visible**
- ◆ **Label should contain the accumulation start date**

# Labeling Universal Wastes (cont.)

- ◆ Label may be as simple as a piece of paper taped to a pallet, or may be a purchased pre-printed label
- ◆ Universal Wastes must be labeled either by container or individually (i.e., a shrink-wrapped pallet, a gaylord box, a drum)

# Labeling Universal Wastes (cont.)

- ◆ **Batteries, Lamps, Electronics, Mercury Devices, Oil-Based Finishes**
  - Label each container/item accumulated as follows:
    - “Universal Waste - Battery(ies)”, “Universal Waste - Lamps”, etc.
- ◆ **Pesticides**
  - Must have the label that was on or accompanied the product when sold and the following label:
    - “Universal Waste - Pesticide(s)”

# Transportation of Universal Waste

- ◆ Universal wastes must be transported in accordance with the US Department of Transportation requirements
  - includes packaging, labeling, marking, placarding, and preparing shipping papers
- ◆ For guidance on DOT requirements:
  - <http://hazmat.dot.gov>
  - DOT Hotline: 1-800-467-4922

# Transportation of Universal Waste (cont.)

- ◆ Universal Wastes sent to a Class D recycling center or another Handler **do not** have to be transported by a NJ licensed solid or hazardous waste transporter
- ◆ Universal Wastes sent to a RCRA TSDF **must** be transported by a NJ licensed solid or hazardous waste transporter

# Summary

- ◆ Universal Wastes are still hazardous wastes, just subject to reduced management requirements
- ◆ Batteries, pesticides, hazardous waste lamps mercury-containing equipment, consumer electronics, and oil-based finishes can be managed as Universal Wastes in New Jersey
- ◆ Crushed bulbs are no longer Universal Waste, and must now be managed as a Hazardous Waste (unless you can prove it is non-hazardous)

# Summary (cont.)

- ◆ Generators and accumulators of universal waste are regulated as handlers
- ◆ Large Quantity Handlers (>11,000 lbs) have more regulatory requirements than Small Quantity Handlers
- ◆ Recyclers of universal waste are regulated as Class D recycling centers

# Summary (cont.)

- ◆ The Federal Universal Waste Rule (40 CFR 273) has been prospectively incorporated by reference into New Jersey's regulations
  - -- keeps New Jersey's rule equivalent to the federal rule
- ◆ New Jersey's Recycling Regulations (NJAC 7:26A) are available on-line at:  
[www.nj.gov/dep/dshw/resource/rules.htm](http://www.nj.gov/dep/dshw/resource/rules.htm)

# Additional Information

- ◆ Federal Universal Waste Rule (40 CFR 273) is available on-line at [www.epa.gov](http://www.epa.gov)
- ◆ Federal Guidance on Universal Waste:
  - <http://www.epa.gov/epaoswer/hazwaste/id/univwast/index.htm>
- ◆ NJDEP Air Permitting information
  - Air Quality - Bureau of Preconstruction Permits (609) 633-2829 or (609) 292-6716
  - on the web: <http://www.state.nj.us/dep/aqpp>
- ◆ USDOT Regulations are available at [www.PHMSA.dot.gov](http://www.PHMSA.dot.gov)

# Still More Information

- ◆ NEWMOA- guidance documents are available at [www.newmoa.org](http://www.newmoa.org)
  - Mercury management information for multiple sources: Fluorescent bulbs, thermometers, switches, etc.
- ◆ NERC- Information on different E-waste management strategies at [www.nerc.org](http://www.nerc.org)
- ◆ US EPA's E-Cycling Program for managing used electronics:
  - <http://www.epa.gov/epaoswer/osw/conserves/plugin/index.htm>

# Contact Information

- ◆ If you have questions on implementing New Jersey's Universal Waste Rule contact:

NJDEP

Solid & Hazardous Waste Management Program

Ralph Asplen, Principal Environmental Specialist

(609) 984-6985 [ralph.asplen@dep.state.nj.us](mailto:ralph.asplen@dep.state.nj.us)