

The New Face of Waste: Training on the Hazards of Universal Waste

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AGENDA

- Introduction
- Why are we here?
- Definition of Universal Waste (UW)
- UW Regulations

AGENDA

- **Examples of UW**
 - **Batteries**
 - **Thermostats**
 - **Pesticides**
 - **Lamps**
 - **Other items**
- **Training Requirements**
- **Summary**

Introduction

- Recognize waste streams
- Identify participants
- Understand Universal Waste (UW) Rule
- Control through training
- Develop Training Curriculum

Introduction

Why Are We Here?

1. To familiarize you with the concept of “Universal Waste” and the specific regulatory requirements for training and worker protection.
2. Provide an overview that will assist with curriculum development for UW handlers.

WHAT IS UNIVERSAL WASTE?

“UNIVERSAL

- Chosen by EPA to describe the nature of certain widely dispersed hazardous wastes.
- Term does not have any specific regulatory meaning; however, hazardous waste with certain characteristics can be a universal waste

UNIVERSAL WASTES

- WASTE STREAMS (Traditional)
 - Lamps
 - Batteries
 - Pesticides
 - Mercury Containing Devices

UNIVERSAL WASTES

– Additional Waste Streams

- Used oil
- Antifreeze
- Aerosol Cans
- PCBs
- Hydrocarbon Filters

UNIVERSAL WASTES

– Additional Waste Streams

- Tires
- Appliances/White goods
- E-Waste (Special)
 - Computers
 - Cameras
 - Phones
 - Copiers
 - Scanners

Universal Waste

- Generated in a wide variety of settings, not solely industrial
- Associated usually with hazardous wastes; and
- Generated by a vast community, in sufficient quantities to cause difficulties in managing waste.

UNIVERSAL WASTE REGULATIONS

- Govern waste collection and management via recycling or treatment thereby greatly reducing waste going to municipal solid waste landfills or combustion units.
- Allow programs such as “take-backs” by retailers and distributors, creating an easy and convenient way for consumers to manage UW.
- Reduce the regulatory burden on businesses that generate wastes.

UNIVERSAL WASTE REGULATIONS

- Requires all states to develop an Enforcement Directive to implement the federal rule.
- Added Mercury-Containing Equipment to the Federal EPA UW Rule in August 2005
- Has specific regulatory requirements for large and small quantity waste handlers.

Small Quantity Generator

- Shall inform all employees who handle or have the responsibility for managing universal waste of the proper handling and emergency procedures at the facility.
- Are prohibited from sending or taking UW to a place other than another UW handler, destination facility or foreign destination.

Large Quantity Generator

Must meet all SQH requirements and shall:

- Notify EPA in writing and receive an EPA identification number.
- Keep a record of all UW shipments received or sent off-site, retain those records for at least three years from the date of receipt or shipment, maintain records of invoices, manifests, logs, bills or lading or other shipment documents.

Universal Waste Regulations

Apply to:

- **Manufacturers**
- **Commercial Businesses**
- **Retail Businesses**
- **Elementary & Secondary Schools, Universities and Colleges**
- **Local/State Governments**
- **The Entire Disposal Chain**

Examples of Universal Wastes

Hazardous Waste Batteries : such as nickel-cadmium, lead-acid, lithium, mercury-containing and button-type.



Hazardous Pesticides : which meet certain conditions for being recalled, suspended or cancelled, as defined in EPA.



4/00 R. G. Bellinger

Mercury-Containing Equipment

Thermostats

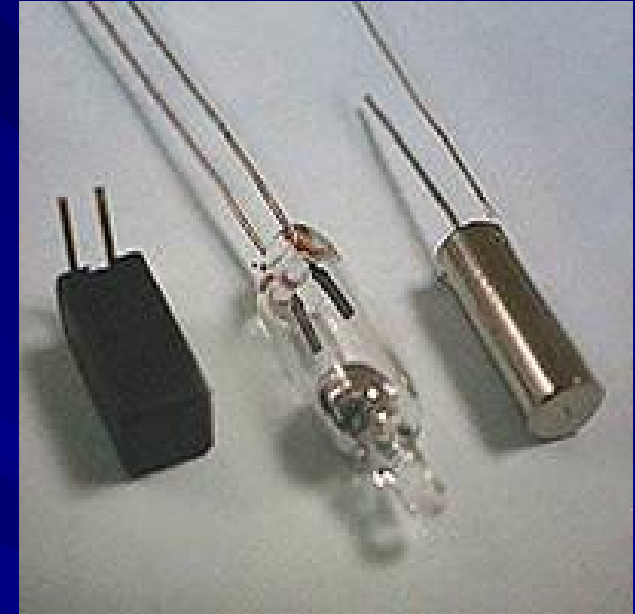


Fever and Body Thermometers



Mercury-Containing Equipment

Switches



Electrical
Devices &
Appliances



Hazardous Waste Lamps : hazardous due to their mercury content, which include fluorescent lamps, high-intensity discharge (HID), neon, mercury vapor, high pressure sodium and metal halide lamps.



Typical Mercury-Containing Equipment

Medical & Scientific Instruments





HID and Fluorescent Lamps



Light-Up Shoes with LED Cartridge



Batteries (Except Button Batteries not Easily Removed)



Novelty Products

FREE
SPIDEY-SIGNAL™
INSIDE THIS BOX

Fun is at your fingertips with the Spidey-Signal. Light up the night and amaze your friends.

Kellogg's 2 different styles. Battery and light are not replaceable. Up to 24 hours of battery life. Battery may contain mercury. Dispose of properly.

A hand holding a red Spidey-Signal device, which is a novelty product that lights up. The device is shaped like a Spider-Man web and is attached to a wrist. The background is a dark blue with a subtle pattern.

Equipment Labeling

- All Mercury-Added Consumer Products Sold After July 12, 2005 *Must be Labeled.*

	Label
*	Contains Mercury
*	Remove Hg Before Disposal
*	Be Conspicuous
*	Durable and Legible for Product's Life



Labeling, Continued

Automobile Manufacturers

Regulations to Allow Alternative Labeling

This vehicle may include mercury-containing devices installed by the manufacturer :

- HID Headlamps
- Navigation or Info. Display
- Back-lit Instruments

Remove Devices Before Vehicle Disposal. Upon Removal of Devices Please Reuse, Recycle, or Dispose as Hazardous Waste.

Universal Waste Training Requirements

EPA Training Requirement for Handlers

- SQHUW: This handler must inform all workers that manage UW of proper handling and emergency procedures appropriate to the type(s) of UW handled at the facility.
- LQHUW: This handler must ensure that all workers are thoroughly familiar with proper waste handling and emergency procedures related to his/ her job during business hours and emergencies.

Other Training Requirements

- OSHA
- EPA
- DOT

OSHA

The Occupational Safety and Health Act of 1970 was passed to prevent workers from being killed or seriously harmed at work. The law requires that employers provide their employees with working conditions and training that addresses protective workplace safety and health standards.

OSHA

- OSHA General Duty Clause
- Facilities that have hazardous waste storage areas must provide training required under either 29 CFR 1910.120 (p)(8) or (q) for those areas.

Specific OSHA Regulations

- Hazardous Communication
- PPE
- Respiratory Protection
- Confined Space Entry
- Materials Handling
- Fire Extinguishers
- Forklifts

OSHA

- Lock Out-Tag Out
- Powered Vehicles
- Lead
- Cadmium
- Accident Prevention
- Emergency Response

EPA

- All facility workers must be taught "*...to perform their duties in a way that ensures the facility's compliance with...*" applicable regulations [40 CFR 265.16(a)(2)]; and
- The training "*...must include instruction which teaches...waste management procedures...relevant to the positions in which they are employed*" [40 CFR 265.16(a)(2)].

EPA

- RCRA - EPA 40CFR 262.34(d)(5)(iii)-
Storage
- Spill Response - EPA 40CFR 112.7 (e)
(10)(i)-(iii)
- SPC Plans
 - Designed to prevent used oil from entering
waterways
- Spill response for workers responding to
oil spills & storage of oil used for recycling

RCRA

- Training shall include:
 - Information in Contingency Plan
 - Standard operating procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment
 - Use and limitations of personal protective equipment

DOT

Title 49 Part 172.702 - any employee defined as a hazmat employee is required to be trained and shall include:

- HM181
- Hazmat Worker
- Job Specific
 - Packaging
 - Labeling
 - Transporting

Hazmat Worker

DOT 49CFR 172.702

- Training and testing requirements for employees who work with hazardous materials

Job Specific

DOT 49CFR 172.704

- Training requirements for hazardous material employees.

HM 181

DOT 49CFR 177.816

- Training requirements for employees who operate a motor vehicle transporting a hazardous material

Enforcement, Fines & Penalties



Both OSHA and EPA can levy citations, fines, and possible jail time for civil or criminal prosecution for waste violations

Enforcement, Fines & Penalties (cont.)

- Individuals may be criminally prosecuted for knowingly:
 - Transporting waste to non-permitted facility
 - Improperly disposing of wastes (i.e., drain or general trash disposal, etc.)
 - Not complying with the Worker Protection Standard

Summary

UW

- If not properly managed can cause harm to workers and the environment.
- Added element in training to ensure worker protection.
- Elements provided in this overview need to be included as part of hazardous waste training curriculum.

Resources

- EPA – Universal Waste
 - <http://www.epa.gov/osw/inforesources/pubs/orientat/rom32.pdf>
- OSHA – Training Requirements in OSHA Standards
<http://www.osha.gov/Publications/osha2254.pdf>

Questions and Answers