



UNIVERSAL WASTE MANAGEMENT AT NIH

THE BASICS

Office of Research Facilities
Division of Environmental Protection
Waste and Resource Recovery Branch
(ORF/DEP/WRRB)



Management of Universal Wastes

(A subset of 'Hazardous Waste' but with less restrictive requirements)

The Basics:

1. **Types of Universal Waste (UW)**
2. **Storage (designated area)**
3. **Containers and Packaging**
4. **Labeling and Marking**
5. **Examples: Specific Containers for Specific UW**
6. **Safety and Emergency Management**

IMPORTANT:

- **DO NOT MIX DIFFERENT TYPES OF UNIVERSAL WASTES IN THE SAME CONTAINER. THEY MUST BE COLLECTED AND PLACED IN A SEPARATE CONTAINER.**

Types of Universal Wastes

1. **LAMPS:** Fluorescent Light tubes, HID (high intensity discharge lamps), Mercury Vapor Lamps, etc.



2. **MERCURY DEVICES:** Thermostats & Thermometers



3. **BATTERIES:** Lead-acid, Ni-cad, Lithium ion, Mercury, and Silver Oxide



4. **LIGHT BALLASTS:** PCB ballasts





“Universal Wastes **Storage Area**”

(Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

STORAGE AREA MUST BE:

1. Identified as a “Universal Waste Storage Area”
2. Inspected weekly to ensure that containers are:
 - closed, labeled, dated, no broken or damaged items etc.
3. Located at or near the point of generation,
 - e.g. within the work area or maintenance shop and under the control of the generator.
4. In a secure location not open to the public or where UW could be accidentally broken or mistaken as disposable trash.



“Universal Wastes Storage Area”

(Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

CONTAINERS/PACKAGING MUST BE:

1. The correct container for the specific type of UW.
2. Properly labeled as “Universal Waste” with the accumulation start date (date that the first item is placed into the container).
3. Be kept closed when not being used.

Call the NIH Chemical Waste Service (CWS) at 301-496-4710 for pickup or to request new containers.

Universal Wastes LABELING/MARKINGS”

(Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

The NIH Chemical Waste Service (CWS) will provide DOT approved containers with proper labeling attached

- Each container must be labeled or marked clearly with any one of the following phrases:
 - “Universal Waste-Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”
 - “Universal Waste-Ballasts”, or “Waste Ballasts,” or Used Ballasts”
 - “Universal Waste-Battery (ies)”, or “Waste Battery (ies), or “ Used Battery (ies)”
- If you use the manufacturer’s or alternate container, you must add the appropriate label and date on each container-----Sample >



UNIVERSAL WASTE
per 40 CFR 273.14 and 273.34

DESCRIPTION _____

GENERATOR INFORMATION: NAME _____ TELEPHONE _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

ACCUMULATION START DATE _____ DOCUMENT NO. _____

HANDLE WITH CARE!

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“Universal Wastes **CONTAINERS**”

(Provided by the NIH CWS for Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

For 3-4 foot/straight lamp tubes.

Use the 4ft, 40 gallon DOT container

For 8 foot tubes, call CWS for pickup (301-496-4710)



“Universal Wastes **CONTAINERS**”

(Provided by the NIH CWS for Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

For U-shaped tubes

Use 30 gallon DOT container
(do not mix with other bulbs)



For HID or CFL lamps

Use 30 gallon DOT container:
(do not mix with other bulbs)



Universal Wastes **CONTAINERS**

(Provided by the NIH CWS for Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

For PCB & Non-PCB Ballast

Use 55 gallon DOT containers

USE SEPARATE CONTAINERS: One for PCB BALLAST and One for Non-PCB BALLAST



A typical pre-1979 PCB-containing fluorescent light ballast (FLB)



A typical Non-PCB containing fluorescent light ballast. The ballast has a "No PCBs" marking on the top of the ballast and the text "electronic ballast". Only magnetic fluorescent light ballasts contained PCBs.



Universal Wastes **CONTAINERS**

(Provided by the NIH CWS for Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

BATTERIES

Call CWS (301-496-4710) to pick up all batteries:

- High Voltage
- Lead Acid
- Gel Cell
- Nickel Cadmium
- Metal Hydride
- Silver Oxide
- Lithium Ion
- Mercury



For Alkaline batteries

Collect in the translucent plastic container provided by CWS.



Universal Wastes **CONTAINERS**

(Provided by the NIH CWS for Light bulbs, fluorescent tubes, batteries, ballasts and mercury devices etc.)

Mercury Containing Devices: Thermostats, Thermometers, Switches etc.

Use 5 gallon container or zip-lock bags





Emergency Procedures

In event of release such as broken light tubes,

- Clean spill if safely able to do so – Protect from cuts and dust and **never use a vacuum cleaner** to clean up broken light tubes.
 - For clean up of CFL tubes, see [EPA recommendations](https://www.epa.gov/cfl/cleaning-broken-cfl) <https://www.epa.gov/cfl/cleaning-broken-cfl>
 - If not Safe, contact the NIH Fire Department at **911** or Fire Department Non-Emergency at 301-496-2372
- Notify supervisor of release, note date and time.
 - Consult w/ the NIH Division of Occupational Health and Safety 301-496-2347 or the Division of Environmental Protection 301-496-7990
- Place debris/spill material in separate container for proper disposal.
- Prepare and attach Chemical Waste Tag to identify contents.
- Call Chemical Waste Service at 301-496-4710 to remove container.

For Additional Information on Universal Waste (UW) Management

- Division of Environmental Protection (DEP) at 301-496-7990
- NIH Chemical Waste Service (CWS) at 301-496-4710
- See the [NIH Waste Disposal Guide](http://orf.od.nih.gov/EnvironmentalProtection/WasteDisposal/Pages/default.aspx)
<http://orf.od.nih.gov/EnvironmentalProtection/WasteDisposal/Pages/default.aspx>

