



## **Universal Waste Disposal Procedures**

When an applicable Department's need to dispose of Universal Waste (fluorescent lamps, batteries, non-PCB transformers) they should follow these procedures:

- 1) Fill Out Universal Waste Form, provided by Environmental Health and Safety
- 2) Contact Environmental Health and Safety to arrange a drop off date and time
- 3) Universal Waste to be taken to SR B52

An excerpt from the University's Hazardous Waste Contingency Plan that deals with/explains Universal Waste is attached.

**NOTE: No Universal Waste can be accepted without a completed inventory form.**

### **Universal Waste**

In accordance with applicable regulations, a waste must be a hazardous waste before it can be defined as a universal waste. Cleveland State University manages the following hazardous waste items as universal waste in accordance with the Universal Waste Rules:

Lamps  
Non-Alkaline Batteries  
Non-PCB Ballasts  
Computer Equipment & Televisions

These items are collected by the Office of Environmental Health and Safety and stored in Science Research Room B52 (except for Computers and Televisions). An inventory of all items placed into this area is maintained, including quantities and dates. The lamps, batteries and ballasts are shipped out periodically during a calendar year and recycled then EHS is given a certificate of recycling.

### **Lamps**

Incandescent, fluorescent, metal halide, neon, high-intensity discharge, high-pressure sodium and mercury vapor illuminating items are generally considered lamps. Fluorescent lamps may contain mercury, cadmium and lead. Maintenance and repair

personnel are to contact the Office of Environmental Health and Safety prior to bringing the material to the Universal Waste Storage Area in SR B52.

All lamps are shipped out intact – there is no crushing on-site.

### **Batteries**

Batteries are returned, where possible, to a vendor during replacement. Otherwise they are also sent out for recycling.

Various types of batteries are present at Cleveland State University. The battery-types and manner of disposal are as follows:

#### Lead – Acid Batteries

Lead is considered to be a hazardous substance. Items containing lead cannot be discarded in regular solid waste containers (dumpsters, garbage cans, etc...). Batteries such as these are common in various types of vehicles (cars, golf carts, tractors etc...). All such batteries are to be returned to vendors for recycling. Other sources of lead-acid batteries (older cell phones and video cameras) are to be **disposed of by notifying Environmental Health & Safety for processing as a hazardous waste.**

#### Nickel-Cadmium (Ni-Cad) Batteries

Cadmium is considered to be a hazardous substance. Items containing cadmium cannot be discarded in regular solid waste containers. Examples of Ni-Cad battery use include rechargeable-type batteries commonly used for pagers, two-way radios, cordless and cell phones, laptop computers and video cameras. All such batteries are to be **disposed of by notifying Environmental Health & Safety for processing as a hazardous waste.**

#### Mercury Batteries

Mercury is considered to be a hazardous substance. Items containing mercury cannot be discarded in regular solid waste containers. Batteries containing mercury are common to hearing aids. All such batteries are to be **disposed of by notifying Environmental Health & Safety for processing as a hazardous waste.**

#### Alkaline Batteries

Alkaline batteries are the battery types found in most households and are non-rechargeable. Their use in equipment and appliances is widespread, from flashlights and radios, to CD players and garage door openers. Batteries of this type do not possess hazardous materials in amounts that require processing as

hazardous waste. The University is investigating alternate forms of disposal (recycling). **These batteries may be disposed of as regular solid waste.**

### Lithium Batteries

Lithium batteries have increased in use over the past few years. They are found in items such as watches, cameras and some computers. These batteries do not possess hazardous materials in amounts that require processing as hazardous waste. The University is investigating alternate forms of disposal (recycling). **These batteries may be disposed of as regular solid waste.**

### **Computer Equipment**

Computer systems (CPU, monitor, keyboard, speakers, printers, scanners, mice, etc...) and televisions are sent to a facility that separates the plastic materials from the electronic components and submitted for recycling.

Revised July 2012