



**Title:** Universal Waste Disposal

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## 1.0 SCOPE

It is the intention of SUNY Fredonia to 1) comply with all federal, state and local laws which pertain to the minimization and disposal of universal waste; 2) ensure that human health and the environmental are protected; and 3) ensure the safe use, storage and disposal of universal waste.

## 2.0 WHAT IS UNIVERSAL WASTE

Universal wastes are regulated wastes including batteries, fluorescent lamps, scrap metal, pesticides, and mercury-containing equipment. 2.1 Universal Waste (UW) is a hazardous waste that is managed under streamlined requirements so to encourage collection and recycling of these wastes. There are four types of wastes considered to be universal wastes:

- 1) **Batteries** such as nickel-cadmium (Ni-Cd) and small sealed lead-acid batteries, which are found in many common items in the business and home setting, including electronic equipment, mobile telephones, portable computers, and emergency backup lighting.
- 2) **Thermostats**, which can contain as much as 3 grams of liquid mercury and are located in almost any building, including commercial, industrial, agricultural, community, and household buildings.
- 3) **Lamps**, which typically contain mercury and sometimes lead, and are found in businesses and households. Examples of common types of lamps include fluorescent, high intensity discharge (HID), neon, mercury vapor, high-pressure sodium, and metal halide lamps.
- 4) **Agricultural pesticides** that have been recalled or banned from use, are obsolete, have become damaged, or are no longer needed due to changes in cropping patterns or other factors.

## 3.0 WASTE MINIMIZATION

3.1 In certain applications non-mercury containing products can be substituted. In the case of thermometers, manometers, etc., digital, dial thermocouples, and alcohol thermometers are practical and accurate



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substitutes. When replacing fluorescent light tubes, low mercury containing bulbs should be used. However, these will still be collected as Universal Waste.

#### **4.0 WASTE COLLECTION/WASTE DISPOSAL**

4.1 Used Fluorescent Light Tubes are considered universal waste. Also included are high intensity discharge (HID) lamps, mercury vapor, high-pressure sodium and neon tubes. Containers for collection of "Used Light Bulbs" are delivered to the academic buildings and residence halls. The container must remain closed at all times, except when adding bulbs. According to federal regulations, SUNY Fredonia is allowed to accumulate used bulbs for one year from the date the first bulb is collected. If the container is full, or is approaching the one-year deadline for disposal, the tube should be transported to the Services Complex for waste pick up. For labeling information please see Section 5.0.

4.2 Old Mercury-Containing Thermostats are also considered universal waste. When replacing old thermostats look to see if the thermostat contains a mercury switch. The mercury switch is a small self-enclosed glass tube with visible liquid mercury inside. Please contact Environmental Health and Safety (x3796) to arrange for disposal. For labeling requirements, see section 5.0 of this policy. If the mercury switch should break, it must be managed as hazardous waste.

4.3 Used Batteries are a concentrated source of a few types of heavy metals. The main constituents of concern for human health and the environment include: cadmium, lead and mercury. Please refer to the battery recycling policy for more information.

4.4 Used Agricultural Pesticides must always be disposed of through Environmental Health & Safety (x3796).

4.5 A C7 form must be obtained from each new disposal vendor utilized by the campus.

#### **5.0 LABELING**

5.1 **Used Light Bulbs** – Containers must have a label affixed with the words "Universal Waste - Used Light Bulbs" and must have the date marked



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on the label from the day the first tube was placed in the container. These labels are available from Environmental Health & Safety (x3796).

**5.2 Used Mercury-Containing Thermostats** – Containers must have a label affixed with the words “Universal Waste - Used Mercury-Containing Thermostats” and must have the date marked on the label from the day the first thermostat was placed in the container. These labels are available from Environmental Health & Safety (x3796).

**5.3 Used Batteries** – Containers must have a label affixed with the words “Universal Waste - Used Batteries” and must have the date marked on the label from the day the first battery was placed in the container. These labels are available from Environmental Health & Safety (x3796).

## **6.0 PERSONAL PROTECTION EQUIPMENT**

6.1 When handling used light tubes, and large lead-acid batteries, it is good practice to wear gloves, and eye protection.