



# Handling Toxic and Universal Wastes

## Why do this?

- It's the law
- It reduces liability
- Ensures worker safety

Toxics and Universal Wastes are commonly produced hazardous materials that pose a hazard to human health, the environment, and can cause significant property damage if improperly handled.

- ### What materials?
- Batteries
  - Lamps
  - Electronic Equipment
  - Pesticides
  - Equipment containing Mercury

## Storage and Handling

1. Containers used to store universal waste must be structurally sound, closed, compatible with the contents of the container, and in good condition.
2. Label the containers to identify the type of universal waste.
3. Universal Waste can be stored for no longer than one year from the date that it is generated.
4. A generator must be able to demonstrate the length of time waste has been in storage by labeling containers with the earliest date that universal waste in the container was disposed of, or by maintaining a log that shows the earliest date that universal waste was accumulated.



## Batteries



Batteries can be labeled:

- Universal Waste – Batteries
- Waste Batteries
- Used Batteries

### Disposal:

Low or non-mercury containing alkaline and carbon zinc batteries can be recycled or disposed of as non-hazardous solid wastes.

For sealed lead acid, nickel-cadmium, lithium ion, mercuric oxide, silver oxide, and other alkaline batteries, the following recommendations apply:

- Store batteries in a safe, leak-proof container in a secure location.
- Label each container of batteries with the earliest date a battery was discarded.
- Make sure cells are discharged.
- Package batteries so terminals will not come into contact with each other (insulate the terminals with tape)

Note: It is okay to mix different types of batteries in the same container as long as the casings are intact and not leaking or broken.

Batteries that do not fit this description should be packaged individually to protect the casings of other batteries from leaking electrolyte.

## Electronic Equipment

Although electronics are not considered "universal waste," many of the components used to make televisions, computers, telephones and other electronic products used in the workplace are.

EPA and VA DEQ are very concerned about ensuring the proper management of used electronics and has undertaken important work to increase the collection and responsible recycling of used electronics.

Common components used in the manufacture of electronics include lead, nickel, cadmium, and mercury, and pose a risk to human health and the environment if mismanaged after disposal.

Electronics can be labeled:

- Universal Waste – Electronics
- Electronic Waste



Storage and Disposal:

- Used electronic equipment should be bundled, shrink wrapped, stored on pallets and kept in a cool, dry area.
- Employees who handle the used electronic equipment should be made aware of safe handling practices to prevent breakage, and on how to handle any breakage.

## Lamps



Lamps and bulbs can be labeled:

- Universal Waste – Lamp(s)
- Waste Lamp(s)
- Used Lamp(s)

A handler of universal waste lamps must manage lamps in a way that prevents releases to the environment. Universal waste lamps must be kept in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents. Containers must remain closed and must be properly labeled.

- Used bulbs can be stored for up to one year at the location in which they were used.
- Save money and prevent breakage by storing and packing lamps safely.
- Put used bulbs in original cartons or those provided by a recycler with no packing material included inside.
- Do not tape bulbs together.
- Store used bulb cartons in a dry place, avoid stacking cartons.
- If stacking is unavoidable, place cartons neatly on pallets and shrink-wrap to prevent cartons from falling.
- Avoid breaking lamps.
- Label the boxes with the date they were stored.

## Other Materials

Pesticides can be labeled:

- Universal Waste – Pesticides
- Waste Pesticides



- All pesticides stored in quantity must be stored in a securely locked, well ventilated area.
- Pesticides should be separated during storage, preferably in bins, depending upon the type of pesticide.
- Do not store pesticides on top any other type of pesticide, to avoid accidental contamination, leakage or spillage.
- Any pesticide material spilled must be immediately cleaned up by an appropriate decontamination method.



Items containing mercury can be labeled:

- Universal Waste-Mercury Containing Equipment
- Waste Mercury-Containing Equipment
- Used Mercury-Containing Equipment.

- Carefully remove ampules and pack securely to prevent breakage during storage, handling, and transportation.
- Immediately seal the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment.
- Stores removed ampules in closed, non-leaking container.
- Store in a well ventilated and secure area.

## Advice on Selecting Disposal Contractors

State and federal regulations hold the generator (your business) liable for proper reclamation/recycling. Choose universal waste recyclers that are certified to meet Responsible Recycling Practices (R2) and the e-Stewards® standards. The EPA maintains an up to date list of certified recyclers online at [www.epa.gov](http://www.epa.gov). The Know Toxics site: [www.knowtoxics.com](http://www.knowtoxics.com) lists vendors serving Virginia and the DC Metropolitan area .



For more information visit: [www.knowtoxics.com](http://www.knowtoxics.com)

