

# Handling, Storing, Packing, and Manifesting Universal Waste

## Welcome to the Universal Waste Training Course

At the conclusion of this course, you should be able to:

- Identify what Universal Waste is and know the difference between Universal Waste and Hazardous Waste,
- Correctly label and pack Universal Waste items,
- Properly store Universal Waste and know the "expiration date" according to the label, and
- Dispose of Universal Waste in a timely manner in the appropriate location.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Hazardous vs Universal

Universal waste is actually a subset of hazardous waste. Universal hazardous waste is so common that everyone generates it. The volume is huge.



The U.S. Environmental Protection Agency (the EPA) knew that it would be difficult, and expensive, to regulate. So, the regulations required for universal waste were reduced. This made it easier, and cheaper, to regulate than hazardous waste.

EPA regulations prevent these potentially hazardous materials from filling up our landfills.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Hazardous vs Universal

Both the EPA and the Alabama Department of Environmental Management (ADEM) have the authority to inspect UAB's universal waste packing, labeling, and storing at any time.

It is critical that you have everything properly packed, labeled, and stored at all times to keep from being fined.





# Handling, Storing, Packing, and Manifesting Universal Waste

## Hazardous vs Universal

UAB uses more than **1 million** fluorescent light bulbs each year! That's a lot of universal waste!



# Handling, Storing, Packing, and Manifesting Universal Waste

## Differences Between Hazardous & Universal Waste

So what are some differences between hazardous waste and universal waste? And why does it matter?

### Universal Waste...

1. requires different packing requirements and
2. has its own manifest.

Also, universal waste regulations are not as strict as hazardous waste regulations whether it is the storage, transportation, and disposal of the waste.

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UNIVERSITY OF ALABAMA SYSTEMS HAZARDOUS MATERIALS MANAGEMENT

**UNIVERSAL WASTE MANIFEST**  
(Packing Instructions on Reverse Side - Print or Type Only)

1) Generator Name \_\_\_\_\_  
2) Building \_\_\_\_\_ 3) Room \_\_\_\_\_  
4) Telephone \_\_\_\_\_ 5) Date \_\_\_\_\_  
6) Department \_\_\_\_\_  
7) Person Completing Manifest \_\_\_\_\_

**HAZARDOUS MATERIALS FACILITY  
USE ONLY**  
EPA Generator # ALD06-308-0160  
Technician# \_\_\_\_\_  
Date Transported \_\_\_\_\_

(8) Material Type	(9) Physical Form	(10) Pounds	(11) # of Items/ Containers	(12) # of Containers	(13) Type of Containers	G40 Control #
Fluorescent Light Bulbs						
Collection Drums						
Collection Boxes						
Batteries						
Lead Acid						
Lead Gel						
NICAD (Nickel Cadmium)						
Alkaline						
Thermistors / Thermocouples						
Paints (except chemical solvents)						
1						
2						
3						
Solvents						
PCB						
Non-PCB						

Check box if you need more:  Universal Waste Labels  Universal Waste Manifests

This is to certify that the above named articles are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to applicable requirements of the UAB Chemical Safety and Waste Management Program and the Department of Transportation. Improper information regarding the transport of hazardous materials over public roads or highways constitutes violation of State and Federal laws which could result in civil or criminal penalties.

(13) Generator Signature \_\_\_\_\_ Date \_\_\_\_\_

(Send top copy to the Hazardous Materials Facility - Attach bottom copy to the box - Retain middle copy for your records)

7-1-2008

# Handling, Storing, Packing, and Manifesting Universal Waste

## Universal Waste Becomes Hazardous Waste

Universal waste can become hazardous waste if/when the container is broken, and the materials inside (mercury, acid, etc.) are spilled, or if the materials are drained from the original container. This should **never be done**.

Once the materials are exposed to the environment, it is hazardous waste and must be handled as such.



Follow the procedures for cleaning up hazardous waste immediately.



**NOTE:** Never pick up glass with your hands - even if they are gloved. Use a broom or tongs!



# Handling, Storing, Packing, and Manifesting Universal Waste

## PPE and Universal Waste

Always wear the appropriate cloth gloves and safety glasses when working with universal waste. These can protect you from possible broken glass, sharps, and other toxic materials.

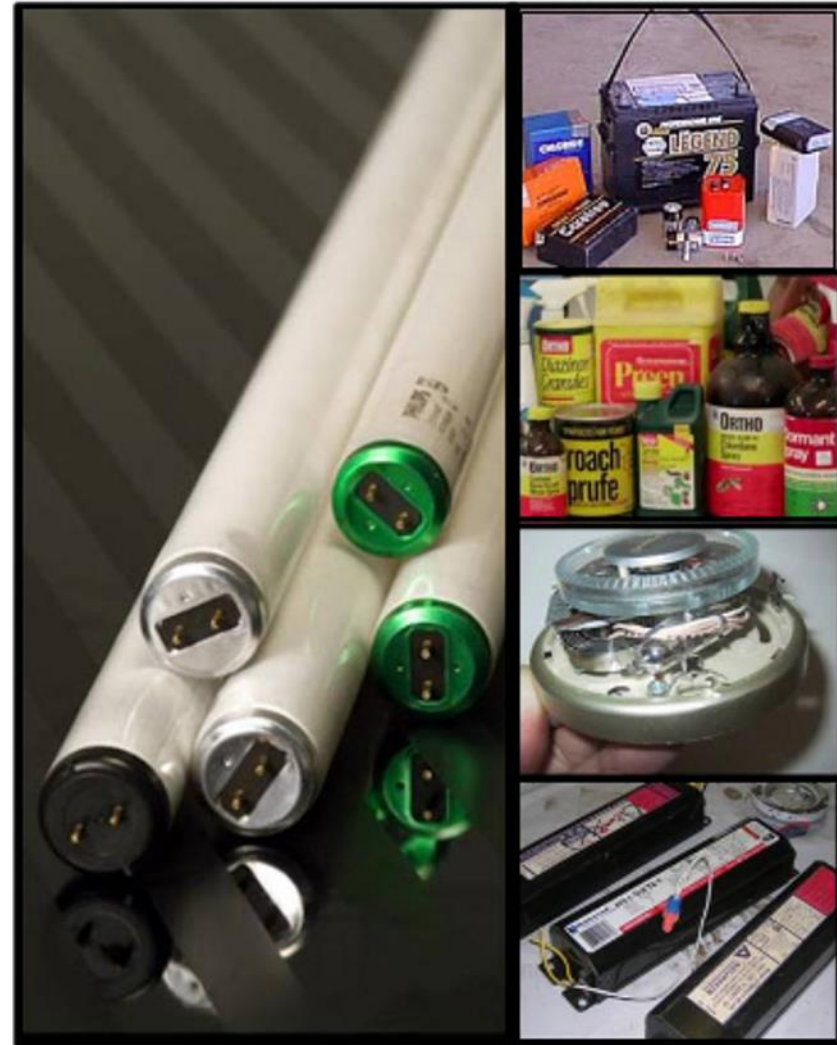


# Handling, Storing, Packing, and Manifesting Universal Waste

## Universal Waste Items

But what is universal waste?

The EPA states that these items are considered to be "universal waste."





# Handling, Storing, Packing, and Manifesting Universal Waste

## Fluorescent Lamps

Fluorescent lamps come in various shapes and sizes. As long as they fit safely and securely in a box/container, they may be packed together as seen here.



However, the fluorescent lamps must fit inside a box - **not like in this example**. You must be able to close the box and tape it shut.



**Never tape** fluorescent lamps together like these.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Fluorescent Lamps

Fluorescent lamps come in various shapes and sizes. As long as they fit safely and securely in a box/container, they may be packed together as seen here.



This is how your **packed and labeled** fluorescent lamps should look when you are ready to store them.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Batteries as Universal Waste

Rechargeable batteries, such as NiCad and Lithium, are considered universal waste, but they may not be packed together in the same box.



NiCad and Lithium batteries must be packed in separate boxes.





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## Batteries with Lead Acid

Batteries that contain lead acid should never be drained. The acid is a corrosive and could cause both health and safety problems.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Mercury Handling

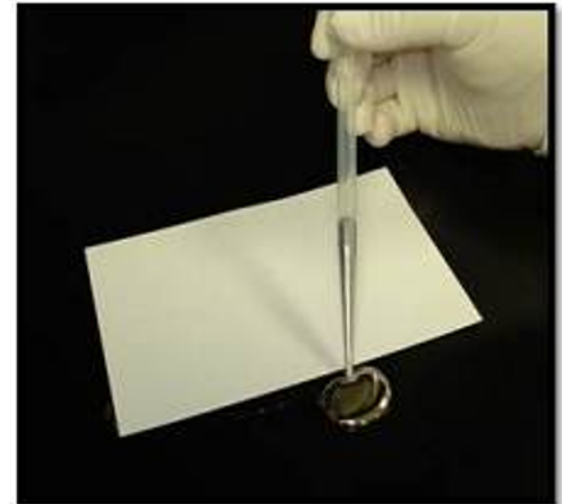
Mercury is commonly used throughout the University in many technical and diagnostic procedures. When contained properly, it is of little threat to our health.

Instant attention to mercury spills is important because inhaling mercury fumes may cause severe respiratory problems.

Remember, when spilled or drained from original container, mercury becomes a hazardous waste and must be treated as such.

There is a job aid on the OH&S website about mercury - the dangers, spills, and disposal.

If you have any questions or need assistance, call OH&S.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Ballast

Ballasts may be stored in metal 55-gallon drums, but never in plastic drums or containers.

Like fluorescent lamps, the container must be properly sealed and labeled.

Ballasts from  
fluorescent lamps



Universal Waste label with  
date and other information



# Handling, Storing, Packing, and Manifesting Universal Waste

## The "Expiration Date"

Universal waste does not have a real expiration date.

However, the EPA and ADEM regulations state that when you put the **first item** in a container for disposal, you must put the current date (today's date) in MM/DD/YY format on the label.

Place the label on the container at that time.

The "expiration date" is exactly one year (or 365 days) from the date on the label.

This means that you must properly dispose of the universal waste in that container before the year is up.

Anything older than 1 year (or 365 days) violates regulations.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Proper Labeling

If you are packing lamps (light bulbs), batteries, or ballasts, the box/container **must** have a label like the one shown here. It **must** contain all of the information in order to be picked up and/or stored properly.



### **Universal Waste**

**Contents:** Lamps - Batteries - Ballasts:

**Accumulation Start Date:** (the date you packed the first item)

**Shipper:** The University of Alabama at Birmingham


**Address:** (where you are physically located)

**Phone:** (where you can be easily reached in case there are questions or an emergency)

# Handling, Storing, Packing, and Manifesting Universal Waste

## Proper Labeling

Labels, like this one, can be obtained from The UAB Support Facility (formerly the Hazardous Waste Facility).

  
**Universal Waste**  
Contents: Lamps - Batteries - Ballasts:  
Accumulation Start Date: 4-28-10  
Shipper: University of Alabama at Birmingham  
Address: 221 South 14th Street  
Birmingham, AL 35294  
Phone: 205/934-3797



# Handling, Storing, Packing, and Manifesting Universal Waste

## Hall of Shame

This page is dedicated to the people who didn't know how to properly handle, pack, or store universal waste. Hopefully, they aren't pictures of you or your area.



# Handling, Storing, Packing, and Manifesting Universal Waste

## Satellite Accumulation Areas

One of the things that the EPA and ADEM check is your satellite accumulation area.

Since there is a job aid (handout) available on the website, the details of how to create a satellite accumulation area will not be covered here.

The handout covers how to:

- choose a location,
- prepare the floor,
- prepare the walls and doors,
- move in containers, and
- store universal waste properly.



# Handling, Storing, Packing, and Manifesting Universal Waste

## How Do Materials Get Picked Up?

Now that your Universal Waste has been properly labeled and packaged for pick up, what happens now?

Pick up Process:

1. Call the UAB Support Facility
2. Tell the UAB Support Facility that you have Universal Waste that needs to be picked up
3. The UAB Support Facility will then tell you the location and time that the AERC will be located at in your area
4. It will be up to you then to take your materials to the location on the correct day



# Handling, Storing, Packing, and Manifesting Universal Waste

## Summary



We've covered everything you need to know about universal waste handling, labeling, packing, and storing.

The EPA and ADEM have found several violations in the past where universal waste was improperly labeled, packed, or stored at UAB.

We need your help to avoid these violations in the future. Go to the OH&S website under Education and Training and Universal Waste to find downloadable, printable job aids (handouts) for step-by-step guides and information to avoid these issues.

Thanks for all your help!

# Handling, Storing, Packing, and Manifesting Universal Waste

## The Assessment

This concludes the Universal Waste course. You should now take the assessment. 80% or higher is considered passing.

You have three attempts to successfully complete the assessment. Failing all three attempts means that you fail the course and must start over.

**Good luck!**