Program refers to waste as “Universal” because they are common to all types of generators.
Formerly managed as “hazardous waste”.
Program provides less-stringent procedures for storage and transport of Universal Waste compared to Hazardous Waste.
Primary regulatory goals – increase recycling and reduce illegal disposal practices.
First adopted by New Jersey in 1996 (NJAC 7:26A).
New Jersey added two categories of Universal waste, beyond the four recognized federally.
Universal waste is classified in New Jersey’s Recycling Regulations as “Class D Recyclable Material”.
## Universal Waste Management

<table>
<thead>
<tr>
<th>Federal (EPA) Universal Waste Includes:</th>
<th>State of NJ (DEP) Universal Waste Includes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pesticides</td>
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<tr>
<td>• Mercury Containing Devices</td>
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<tr>
<td>• Lamps and Ballasts</td>
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<tr>
<td>• Used Oil</td>
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<tr>
<td>• Batteries</td>
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<td>• Thermostats</td>
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<td></td>
<td>• Oil-based finishes</td>
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<td></td>
<td>• Consumer electronics</td>
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</tbody>
</table>

✓ Other than pesticides, NJIT generates all these waste types
Examples of Universal Waste

- **Non Lead Acid Batteries** – wet, dry, intact, and broken batteries. Alkaline batteries are managed as non-hazardous solid waste.
- **Mercury-Containing Equipment** - thermostats, thermometers, barometers, and switches.
- **Mercury Lamps** – fluorescent, neon, metal-halide, mercury-vapor and high-pressure sodium lamps.
- **Pesticides** – are to be managed by the landscaping or pest control vendors.
- **Consumer Electronics** – Computers, printers, copiers, cell phones, electronic pads, VCRs and TVs.
- **Oil-based Finishes** – Paints, lacquers, stains and aerosol paint cans.
Universal Waste Handler

- EPA defines a Universal Waste Handler, in part, as any generator of Universal waste.
- NJIT is a Small Quantity Handler of Universal Waste as it always has less than:
  - 5,000 Kg;
  - 11,000 pounds; or
  - 5.5 tons of Universal Waste on campus at any time.
- A Large Quantity Handler has greater than the amounts listed above of Universal Waste onsite at any time.
- Should NJIT become a Large Quantity Handler, it will remain a Large Quantity Handler for the remainder of the calendar year.
- Goal is to remove Universal waste as soon as possible to maintain NJIT’s Small Quantity Handler status
Universal Waste Storage

- All Universal waste must be stored in a manner to prevent a potential release to the environment.
- The EHS Department has a wide variety of containers available to store different types of Universal Waste.
- For example, intact light tubes are stored in fiber drums while broken light tubes are stored in 55-gallon steel drums with tight fitting lids.
Universal Waste Storage

• Similarly, intact batteries, ballasts, and switches may be stored in fiber drums while broken or batteries, ballasts, and switches are stored in 55 gallon steel drums with tight fitting lids.

Fiber Drum for Intact Batteries, Ballasts, and Switches

Steel Drum with Tight Fitting Lid for Broken Batteries, Ballasts, and Switches
Universal Waste Storage

A variety of other containers are available from EHS to properly store Universal Waste.

1-gallon plastic screw top container is appropriate for storage of a broken thermometer to prevent leakage of mercury vapor.

5-gallon plastic container with tight fitting lid is appropriate for storage of a broken or breached Universal Waste batteries.

Exception: Oil-based finishes (paint, lacquer, stain) are to be left covered in the manufacturers’ original containers.
No matter which container is selected - All containers of Universal Waste must be properly labeled. Universal Waste labels must be filled out completely – including contact information.
Universal Waste Storage

• Another type of Universal Waste is Used Oil.
• Used Oil may be generated by laboratories when changing vacuum pump oil or by Physical Plant maintenance activities.
• Depending on size, Used Oil may be stored in a variety of closed head, screw top containers appropriate for liquid storage.

1-gallon screw top container  
5-gallon screw top container  
30-gallon closed head drum  
55-gallon closed head drum
Universal Waste Labeling

No matter which container is selected - All containers of Used Oil must be properly labeled. Used Oil labels must be filled out completely – including contact information.
Universal Waste Labeling

Department Specific Waste Labels are Available from EHS. These labels have been prepared for the Facilities Services Department.
Universal Waste Accumulation Areas

• Labs and shops should store Universal Waste in their designated waste accumulation area.
• Containers of Used Oil may be placed in the bin labeled flammable with other flammable, ignitable, and combustible materials. Most other types of Universal Waste (e.g., batteries and lamps) are considered toxic.
• Labs usually use small containers to store Universal Waste.
  • Typically 1 quart, 1 gallon, or 5 gallon containers
• Academic shops and Facility Maintenance shops will use larger containers to store Universal Waste
  • Typically 5 gallon, 30 gallon, or 55 gallon containers
Universal Waste Accumulation Areas

Several Universal Waste Accumulation Areas have been established for the storage of Universal Waste at NJIT:

- **Used Light Tubes**: Stored in the basement of Cypress Hall
- **Used Oil**: Stored in the basement of Faculty Memorial Hall
- **Batteries and Ballasts**: Stored on the Tiernan Loading Dock
- **Mercury Containing Equipment**: Stored in the EHS cage on the Tiernan Loading Dock
- **Oil Based Finishes**: Stored in the Facilities Services Building
- **Consumer Electronics**: Stored in the Student Mall
Universal Waste Accumulation Areas

• Containers of Universal Waste may be stored on site for up to 1 year.
• Individual containers of Universal Waste should be dated once waste is first placed in the container.
• Removal of Universal waste may be arranged by calling EHS at extension 3059.
• Alternatively, the waste removal request form, found on the EHS website, may be completed, attached to an e-mail, and sent to: healthandsafety@njit.edu
• Similarly, replacement containers may be requested by completing the Waste Container Request Form, attach to an e-mail, and send to: healthandsafety@njit.edu
The Waste Removal Request Form may be completed, saved, and e-mailed to: healthandsafety@njit.edu to facilitate the removal of Universal Waste from NJIT labs and shops.
The Waste Container Request Form may be completed, saved, and e-mailed to: healthandsafety@njit.edu to facilitate the delivery of replacement containers and labels from EHS.
Examples of Universal Waste Management

Improper accumulation and storage of fluorescent light tubes

Light tubes properly packaged and labeled as Universal Waste
Universal Waste Management
Used Oil Storage - Basement FMH

Unlabeled and Unsealed Drum of Used Oil

Properly Labeled and Sealed Drum of Used Oil
Universal Waste Storage Area
Cypress Hall - Basement

Properly packaged, labeled, and stored lamps and electronics
NJIT Environmental Health and Safety (EHS) Department

Contact Us:
https://www5.njit.edu/environmentalsafety/
973-596-3059
healthandsafety@njit.edu