APPLICATION

NYU Langone Health

PURPOSE

To protect human health and the environment through the proper management and disposal of universal waste.

To comply with the requirements of 40 CFR Part 273: Standards for Universal Waste Management.

Note: This Safety Policy supplements Safety Policy 108: Chemical Waste Minimization and Disposal Program.

POLICY AND GENERAL INFORMATION

1.0 Application

NYU Langone Health (NYULH) refers to the NYU Langone Health System, NYU Langone Hospitals, NYU Grossman School of Medicine, NYU Long Island School of Medicine, the Family Health Centers at NYU Langone, and all entities controlled by any of them.

This policy applies to:
- All indoor and outdoor areas of all NYULH owned and leased facilities.
- All employees, contractors, and consultants of NYULH

2.0 Definitions

Universal waste is hazardous waste that is managed under less restrictive requirements because it is recycled. If items are broken, leaking or not recycled, they must be managed as hazardous waste (see Safety Policy 108: Chemical Waste Minimization and Disposal Program).

Universal waste includes batteries, pesticides, mercury-containing equipment and lamps as described below.
Batteries are universal waste if they contain hazardous components such as heavy metals or hazardous characteristic chemicals as per 40 CFR 262.24 and are not leaking (leaking batteries must be managed as hazardous waste). They may be non-rechargeable, rechargeable, or be used consumer products containing rechargeable batteries that are not easily removed.

The following are the most common batteries that are managed as universal waste.

<table>
<thead>
<tr>
<th>Type</th>
<th>Common uses</th>
<th>Hazardous component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-rechargeable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithium</td>
<td>Computers, cameras</td>
<td>Lithium</td>
</tr>
<tr>
<td>Mercuric oxide</td>
<td>Medical equipment</td>
<td>Mercury</td>
</tr>
<tr>
<td>Silver oxide (button)</td>
<td>Calculators, watches, cameras</td>
<td>Silver</td>
</tr>
<tr>
<td>Zinc-air (button)</td>
<td>Hearing aids, pagers, cameras</td>
<td>Mercury</td>
</tr>
<tr>
<td>Rechargeable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small sealed lead acid</td>
<td>Tools, camcorders, small generators</td>
<td>Lead</td>
</tr>
<tr>
<td>Large sealed lead acid</td>
<td>Large generators</td>
<td>Lead</td>
</tr>
<tr>
<td>Nickel-cadmium (NiCad)</td>
<td>Smoke alarms, tools, small generators</td>
<td>Cadmium</td>
</tr>
</tbody>
</table>

Note: Under normal conditions, alkaline and carbon zinc batteries are not universal waste since these do not contain hazardous components. See Section 5.0 for procedures for disposing of alkaline and carbon zinc batteries.

Pesticides that are managed as universal waste include:

- Stocks of unused suspended or canceled pesticides that are subject to a voluntary or mandatory recall.
- Stocks of other unused pesticide products that are collected and managed as pesticide waste.

Mercury-containing items that are managed as universal waste include unbroken:

- Switches
- Thermometers, barometers, sphygmomanometers (blood pressure machines), and other meters or gauges
- Thermostats
Lamps that are managed as universal waste include unbroken:

- Fluorescent light tubes
- High-intensity discharge (HID) lamps
- Neon lamps
- Ultra-violet lamps

3.0 Responsibilities

3.1 Environmental Health and Safety (EH&S) is responsible for:
   - developing the Program
   - managing the Program at all facilities, except NYU Winthrop Hospital (NYUWH), and lamps from NYU Langone Orthopedic Hospital (LOH)
   - approving recycling facilities
   - developing training materials and providing employee training
   - periodically evaluating the effectiveness of the Program
   - arranging for proper disposal of universal waste from all facilities except NYUWH
   - maintaining the universal waste records

3.2 Housekeeping is responsible for the Program at NYUWH, including:
   - managing the Program
   - approving recycling facilities
   - developing training materials and providing employee training
   - periodically evaluating the effectiveness of the Program
   - arranging for proper disposal of universal waste
   - maintaining the universal waste records

3.3 Departmental heads or their designee(s) are responsible for compliance with the Program within their departments. Their responsibilities include, but are not limited to:
• ensuring that universal waste disposal containers meet the requirements described in Section 4.0 of this policy, including proper labeling of contents and accumulation start date
• ensuring proper collection of universal waste within their department(s)

3.4 **Facilities** (Facilities Management, Facilities Operations, Engineering) and Real Estate are responsible for managing universal waste lamps from their facilities, including:
• Collecting, storing, labeling, and dating universal waste lamps properly
• notifying EH&S or NYUWH Housekeeping (or Housekeeping’s vendor) for pickup and when additional containers are needed

**LOH Facilities** is also responsible for:
• arranging for proper disposal of universal waste lamps
• maintaining records for disposal of universal waste lamps

3.5 **Building Services** and **Environmental Services** are responsible for collecting alkaline and carbon zinc batteries from patient care areas they service where large quantities of batteries are used.

**LOH Environmental Services** is also responsible for:
• collecting all universal waste except waste lamps
• maintaining records for disposal of universal waste that they collect

3.6 **Clinical Engineering** and **NYUWH BioMed** are responsible for universal waste batteries, including:
• collecting universal waste batteries from medical equipment and sorting, storing, labeling, and dating them properly until they are picked up
• contacting EH&S or NYUWH Housekeeping for pick-up or when additional containers are needed

4.0 **Procedures**

4.1 Label all universal waste or waste containers, with the words “Universal Waste” and a description of the waste contents on the label (e.g., Universal Waste – Used Ni-Cad batteries). For a sample label, see Appendix A.
4.2 Date waste or waste containers with the accumulation start date (the date the first item is placed in the container).

4.3 Ensure universal waste is removed within 1 year of the accumulation start date.

4.4 Ensure containers:
   - remain closed with tight fitting lids, except when waste is being added to the container
   - do not contain mixed types of universal waste (separate batteries by type)
   - are structurally sound
   - are compatible with the waste contents
   - do not show evidence of leakage or spillage

4.5 Discard any items that show evidence of leakage, spillage, or damage as hazardous waste (see Safety Policy 108: Chemical Waste Minimization and Disposal Program).

4.6 Contact Facilities or Real Estate for in-house pickup of universal waste lamps, and transportation to the waste storage area.

4.7 Contact EH&S for off-site disposal of full universal waste containers or universal waste containers with a collection start date approaching one (1) year.
   - Exceptions: at LOH, contact Environmental Services for routine removal from LOH off-sites; at NYUWH, contact Housekeeping for off-site disposal of universal waste.

4.8 Do not send universal waste to a destination facility unless the facility has been approved by EH&S or NYUWH Housekeeping.

4.9 Protect battery terminals before placing in containers. Tape terminals or place batteries in individual baggies.

4.10 Alkaline and carbon zinc batteries
   - In locations where very few batteries are used, discard used batteries in the regular trash, since they are not universal waste.
• In locations where large volumes of batteries are used, place tape on the battery terminals or place in individual baggies and deposit in a collection container. Contact Building Services or LOH Environmental Services for disposal.

5.0 Related Safety Policies

Safety Policy 108: Chemical Waste Minimization and Disposal Program

Appendix A Sample Universal Waste Label

<table>
<thead>
<tr>
<th>Issue date</th>
<th>12/2019</th>
</tr>
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<tbody>
<tr>
<td>Replaces</td>
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</table>
| Reviewed by  | P. Aguilar, Building Services
              | E. Cintron, Real Estate
              | R. Cohen, Facilities Operations
              | N. Ejaz, NYU Langone Hospital - Brooklyn Safety Officer
              | T. Harper, LOH Environmental Services
              | J. Kang, Environmental Health and Safety
              | F. Mineo, NYUWH EOC Compliance and Emergency Mgmt
              | D. Rubbo, LOH Facilities
              | L. Wetstein, Clinical Engineering
              | NYU Langone Hospital Environment of Care (EOC) Committee
              | NYU Langone Orthopedic Hospital EOC Committee
              | NYU Langone Hospital – Brooklyn EOC Committee
              | NYU Winthrop Hospital EOC Committee
              | Family Health Centers EOC Committee

Summary of Revisions

<table>
<thead>
<tr>
<th>Revision date</th>
<th>Section</th>
<th>Changes</th>
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<tbody>
<tr>
<td>November 2019</td>
<td>1.0</td>
<td>Incorporates Winthrop and NYU Long Island School of Medicine</td>
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<tr>
<td></td>
<td>3.2</td>
<td>Adds responsibilities for NYUWH</td>
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<tr>
<td></td>
<td>Reviewed by</td>
<td>Adds review by NYU Winthrop Hospitals</td>
</tr>
<tr>
<td>August 2017</td>
<td>Throughout</td>
<td>Updates logo and organizational references</td>
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<tr>
<td>February 2017</td>
<td>Application</td>
<td>Changes NYULMC to NYU Langone</td>
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<tr>
<td></td>
<td>1.0</td>
<td>Defines NYU Langone</td>
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<tr>
<td></td>
<td>3.0</td>
<td>Clarifies universal waste batteries</td>
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Revised: November 20, 2019
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tr>
<td>Adds responsibilities for Lutheran Facilities</td>
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<tr>
<td>Adds responsibilities for Real Estate</td>
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<tr>
<td>Clarifies procedures for universal waste collection</td>
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<tr>
<td>Adds review by Real Estate, HJD, Lutheran, and LFHC Environment of Care Committees</td>
<td></td>
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</tbody>
</table>
Sample Universal Waste Label

universal waste

contents

accumulation start date

shipper

address

city, state, zip

LABEL MADE IN REDMOND, OREGON, U.S.A.
THE DE LEON CORPORATION 1989