

# A Refresher on the Management of Hazardous Waste and Guidelines for the Inspection of Areas that Generate Waste



# Objectives

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- ◆ Review the requirements for managing hazardous waste.
- ◆ Learn to use inspection form as a guide to determine compliance status of areas that accumulate hazardous waste.

# Objectives –Avoid This!!



# Getting Started

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- ✓ Obtain a copy of EH&S's Hazardous Waste Self-Inspection checklist.  
Available at  
[www.sunysb.edu/ehs/environmental/epa/links.shtml](http://www.sunysb.edu/ehs/environmental/epa/links.shtml)
- ✓ Call ahead, so someone from the location can accompany you.
- ✓ Schedule a date for inspection.

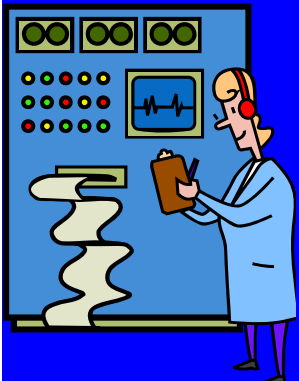
# Complete Information on Location to be Inspected

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Department: \_\_\_\_\_ Lab: \_\_\_\_\_

Date \_\_\_\_\_ Contact: \_\_\_\_\_

- ✓ Even if you are inspecting your own area or lab, you should complete this information for future reference.



# Check the General Condition of the Work Area

General Safety / Security	Yes	No	NA
Lab is secure & door is locked when lab is unattended. *			

\* The “open door” policy jeopardizes your research and allows anyone access to your hazardous chemicals.



# No one may smoke inside any campus building

General Safety / Security	Yes	No	NA
No eating, drinking or smoking is allowed. *			

\*

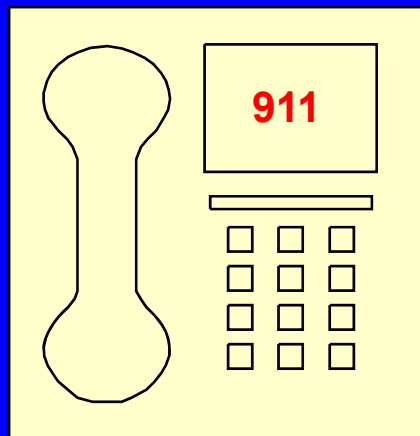
**NO Food in the Lab Refrigerators**



# Everyone should know how to contact University Police

Communication Systems	Yes	No	NA
Phone is available			
Emergency numbers are available *			

\* On-campus  
dial 911



\* Off campus or using a  
cell phone dial (631)  
632-3333



632-3333



EH&S has posters available online @ [www.sunysb.edu/ehs](http://www.sunysb.edu/ehs)



## If you have a **CHEMICAL SPILL**



### STEPS TO TAKE FOR SMALL & LARGE SPILLS

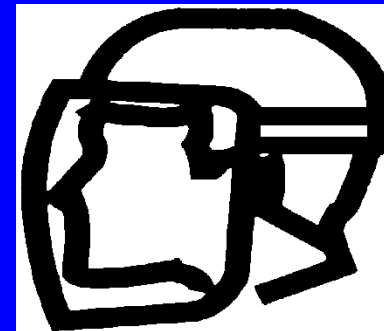
- 1. Notify your supervisor and contact EH&S immediately.** If you get voice mail at EH&S (2-6410), if it is an EMERGENCY, or if it is after hours, call University police at 922 (on campus) or 632-3333 (off campus) and tell them that you need to contact EH&S to report a spill.
- 2. Provide spill details to EH&S.** (your name, phone #, location of spill, material & quantity spilled, whether or not you have Material Safety Data Sheet, extent of spill, any injuries)
- 3. Evacuate everyone from the area and without putting yourself in danger** (review Material Safety Data Sheet or available information on the material to determine hazards), **secure spill area immediately** (close doors, place caution tape around area, cover any drains in the area, place pads down to prevent material spread.)
- 4. When the Haz Mat Response Team responds, keep out of the way and wait for further instruction from EH&S.**
- 5. If you are instructed by EH&S to clean it up yourself,** (review Material Safety Data Sheet and any other available information for appropriate response) **use SPILL KIT materials, and wear appropriate Personal Protective Equipment** (double glove and protective eyewear at a minimum) **to clean up spill.**
- 6. Bag materials, obtain haz waste labels from EH&S, label contents, and contact EH&S for a waste pick-up.**
- 7. Review with EH&S if they must report the spill to NYSDEC.** EH&S is responsible for reporting spills to the NYSDEC. Whether or not a spill should be reported varies based on the hazardous substance and quantity spilled.

For **LEAKS** from the ceiling, under floors, behind walls, or of other unknown origin, contact Physical Plant at 2-6400 to conduct initial investigation.

# Personal Protective Equipment is available & in use

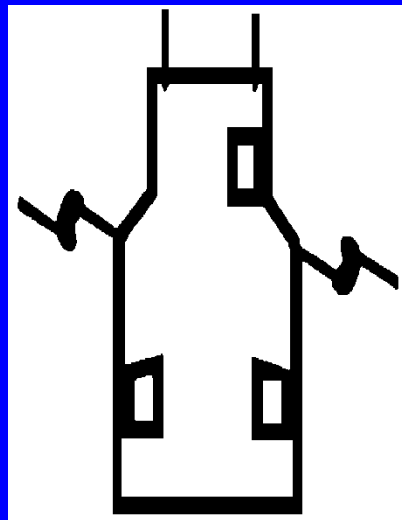
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Splash  
Goggles



Face  
Shield

Apron



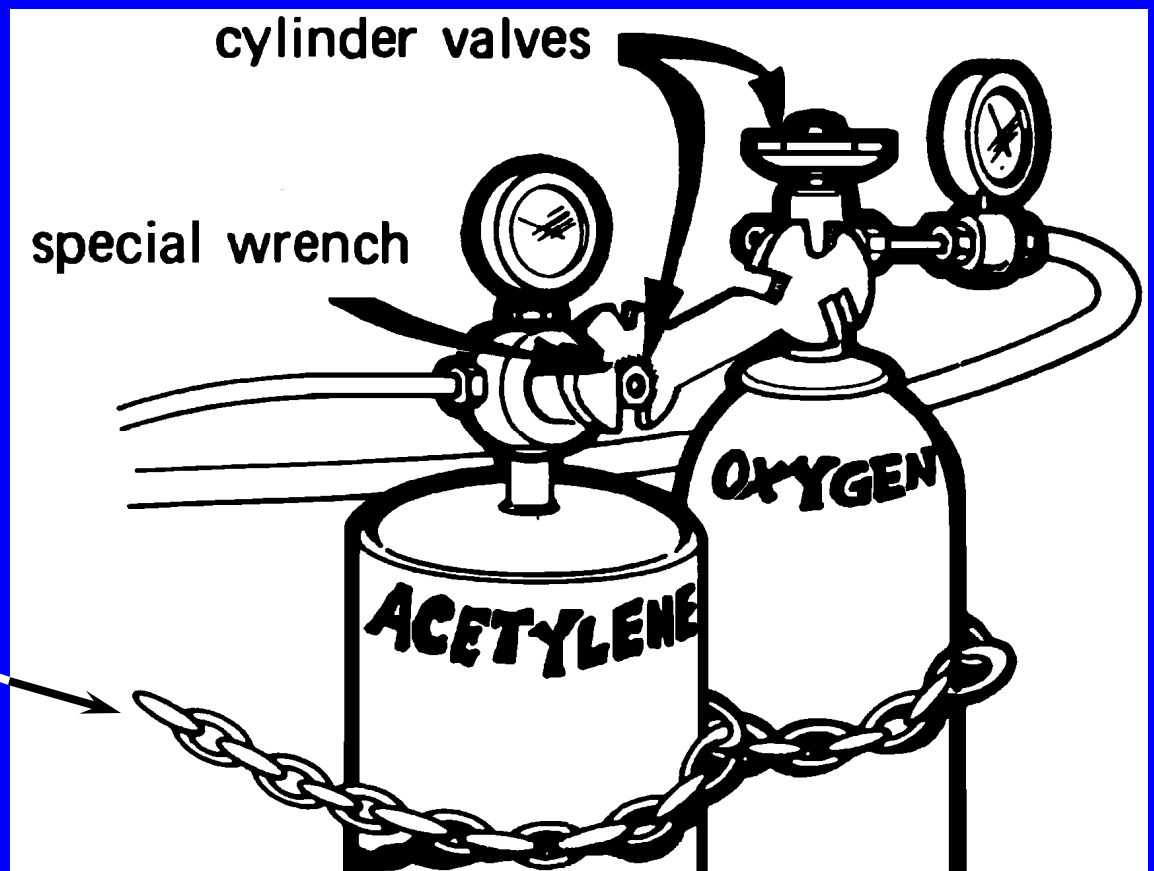
Gloves



# Compressed Gas Cylinder Safety

Use valve caps when not in use

Chained & secured

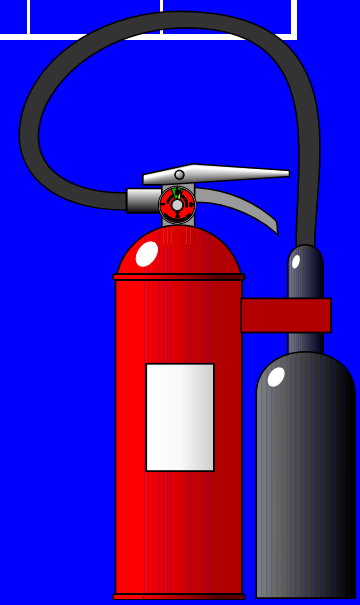
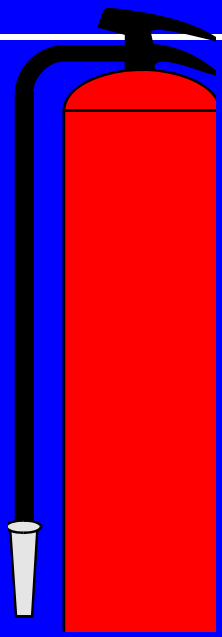


# Spill control material (absorbants, spill pads) should be available



# At least one fire extinguisher should be available

Emergency Equipment	Yes	No	NA
Personnel know the location of Fire Extinguishers			
At least one fire extinguisher is nearby			

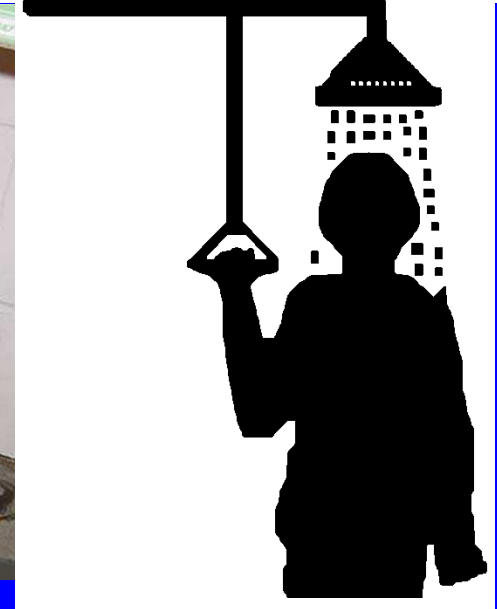


# Safety shower and/or eyewash should be available

<b>Emergency Equipment</b>	Yes	No	NA
Personnel must know where the safety shower is located.			
Safety shower must be nearby.			



Inspection Date



# Waste Handling Requirements

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No hazardous wastes may be dumped down the drain, discharged to sanitary sewer or garbage. discarded with



# Waste Management

EH&S labels have the words "Hazardous Waste" & meet the requirement

## State University of New York at Stony Brook HAZARDOUS WASTE for DISPOSAL

Name	Date	Department	Location	Telephone
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Name of Hazardous Waste

50 % Sodium Hydroxide

Material	Form	Hazard
<input type="checkbox"/> Chemical <input type="checkbox"/> Solvent <input type="checkbox"/> Biological Substance <input type="checkbox"/> Drug Substance <input type="checkbox"/> Other _____	<input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/> Other _____	<input type="checkbox"/> Poison <input type="checkbox"/> Air Reactive <input type="checkbox"/> Water Reactive <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Oxidizer <input type="checkbox"/> Explosive

EH&S STORAGE DATE \_\_\_\_\_



# Waste Management

Small hazardous waste labels may be used for waste stored in original container.

<b>Hazardous Waste</b> Stony Brook University Stony Brook, NY 11794 _____ (631) 632-6410                      Date	<b>Hazardous Waste</b> Stony Brook University Stony Brook, NY 11794 _____ (631) 632-6410                      Date	<b>Hazardous Waste</b> Stony Brook University Stony Brook, NY 11794 _____ (631) 632-6410                      Date
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# Waste Management

Label must list contents.

Do not use chemical formulas or abbreviations

## State University of New York at Stony Brook HAZARDOUS WASTE for DISPOSAL

Name of Hazardous Waste		
NAOH		
<b>Material</b>	<b>Form</b>	<b>Hazard</b>
<input type="checkbox"/> Chemical <input type="checkbox"/> Solvent <input type="checkbox"/> Biological Substance <input type="checkbox"/> Drug Substance <input type="checkbox"/> Other _____	<input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/> Other _____	<input type="checkbox"/> Poison <input type="checkbox"/> Air Reactive <input type="checkbox"/> Water Reactive <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Oxidizer <input type="checkbox"/> Explosive

EH&S STORAGE DATE \_\_\_\_\_

# Waste Management

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Waste containers must be labeled with contents of container & the words “**Hazardous Waste**”

~~Waste  
Poison~~

~~Aqueous  
Waste~~

~~Waste  
Solvent~~

~~HPLC  
Waste~~

# Waste Management

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The following are example of a correct name with the words  
“Hazardous Waste”

Hazardous Waste

10% Phenol

Hazardous Waste

Silver Nitrate Solution

Hazardous Waste

Methylene Chloride

Hazardous Waste

Acetonitrile, ethyl acetate,  
methanol, 2% acetic acid

# Waste Management

## Waste containers must be kept closed

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Leaving containers open allows waste to evaporate into air. It is unsafe, unhealthy and illegal.



# Waste Management

Waste containers must be stored within secondary containment



Most hoods have drains that could allow a spill to discharge into the sanitary system.

# Waste Management

Secondary containment must be in good condition (No Leaks)

Funnel left in container.  
Top is not closed

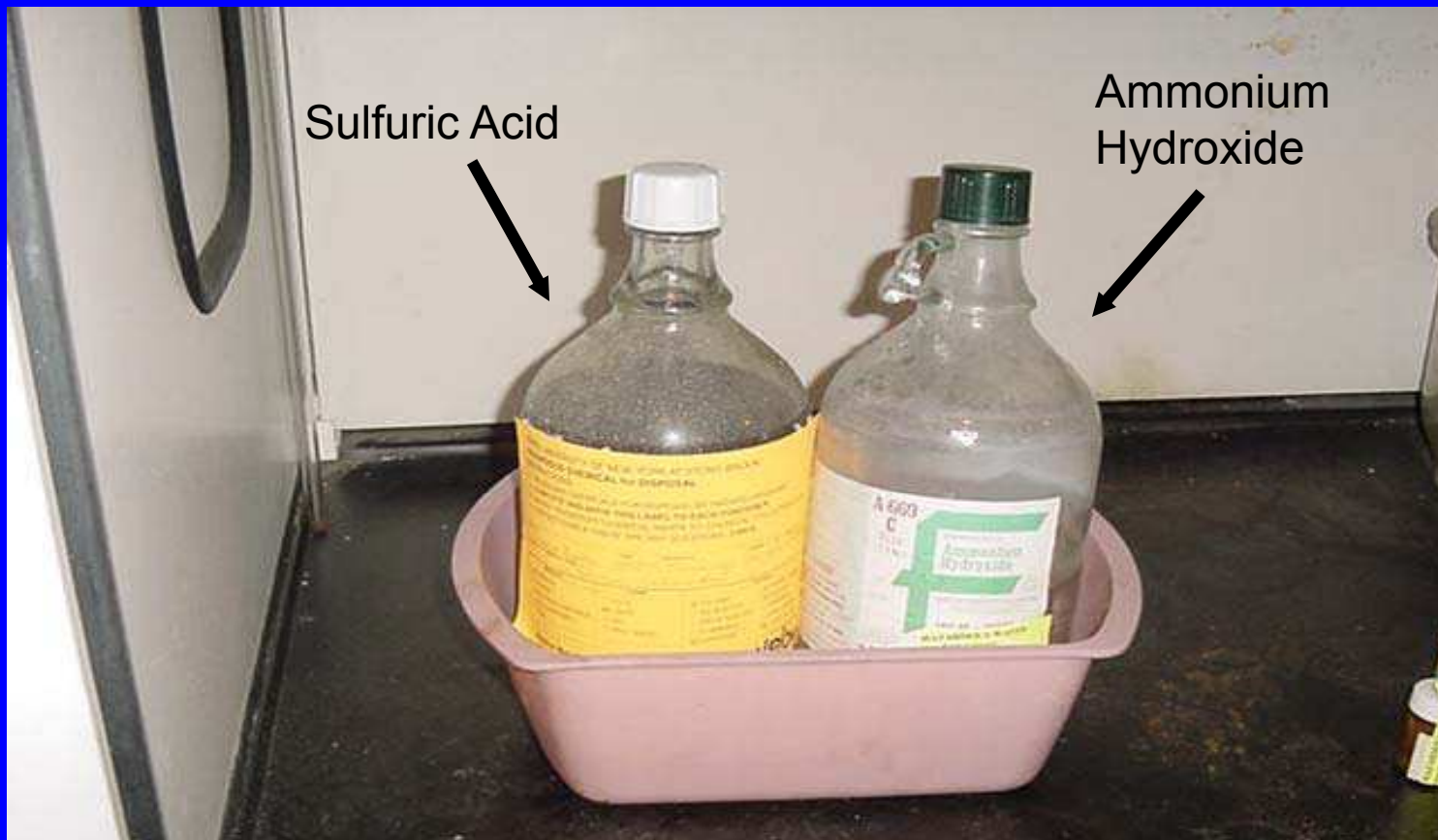
Cap is loose. Top  
is not closed

Secondary  
containment  
is damaged  
and would  
not contain  
a leak.



# Waste Management

Incompatible wastes must be segregated in separate containment



Sulfuric acid and ammonium hydroxide would react violently if mixed together during a spill



# Waste Management

Labels have the date the container became full and are removed in 3 days.

## State University of New York at Stony Brook HAZARDOUS WASTE for DISPOSAL

Name	Date 1/3/2005	Department	Location	Telephone
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Name of Hazardous Waste 50% Sodium Hydroxide
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Material	Form	Hazard
<input type="checkbox"/> Chemical <input type="checkbox"/> Solvent <input type="checkbox"/> Biological Substance <input type="checkbox"/> Drug Substance <input type="checkbox"/> Other _____	<input type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/> Other _____	<input type="checkbox"/> Poison <input type="checkbox"/> Air Reactive <input type="checkbox"/> Water Reactive <input type="checkbox"/> Flammable <input type="checkbox"/> Corrosive <input type="checkbox"/> Oxidizer <input type="checkbox"/> Explosive

EH&S STORAGE DATE 1/6/2005

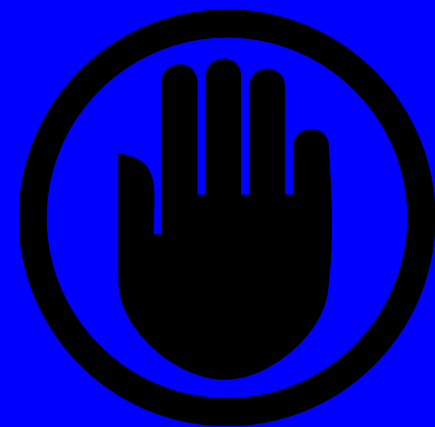


Is waste stored where it is generated or is it moved to another location?

**Frisbee Rule:** If your waste is stored so far away that you can not hit it with a frisbee, your area becomes a 90-day storage area & must meet more strict requirements. (i.e. containers must be dated, inspections must be done every week & DANGER sign posted on door.) To avoid these requirements: **STORE YOUR WASTE IN YOUR AREA.**

**DANGER HAZARDOUS WASTE  
UNAUTHORIZED PERSONNEL  
KEEP OUT**

For Information Call 632-6410  
For Emergency Call 911



# **NO STOCKPILES of OLD CHEMICALS**

**Inherently “waste-like” chemicals are removed**

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**Inherently Waste-like means containers don't look used.**

- **Labels are worn, with no attempt to re-label container.**
- **Chemicals that have expired their shelf life.**
- **Containers are leaking, have corroded caps or are covered with dust.**

**Has the chemical been used in 2 years?**

**Will it be used in the next year?**

**If the answer is NO, have EH&S dispose of the chemicals.  
(The identity of unknowns must be determined before the pick-up.)**

**Inform EH&S if PI's are planning to leave the University.**

# Waste Management

Containers must not be leaking, rusted or damaged



# Waste Management

Waste is not allowed to accumulate & containers are removed when full





# Comment on important points

EPA considers old, out-dated chemicals as hazardous waste

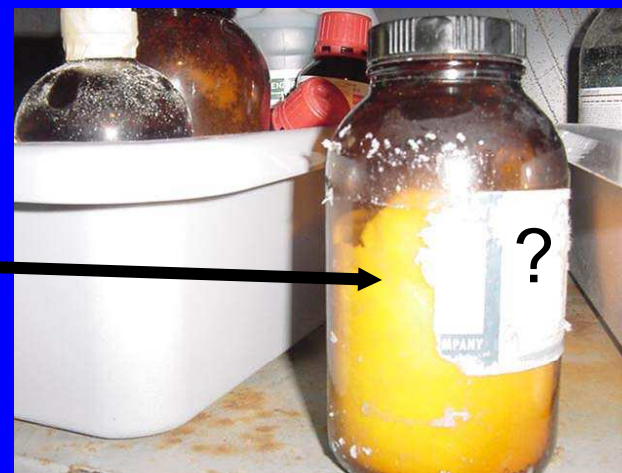
Expired  
Ethyl  
Ether  
Cans



Dry  
Picric  
Acid



Missing  
labels



# Cradle to Grave Responsibility

Your SUNY Manifest proves your waste was given to EH&S staff

Waste should never be left unattended



# Waste Management

Regulated Medical Waste (RMW) is stored in bags & boxes with labels



RMW should never be left in hall unattended



Used lamps should be stored in cardboard boxes. Original boxes (without spacers are best, but any box they fit in is fine.

**Boxes must have Universal Waste Label, with date and be closed. Boxes must be sufficiently taped for transport Do not store boxes outside.**

**Call EH&S @ 2-6410 for pick-up or bring to HMMF (Bldg 43)**



# Used Batteries

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- Includes: lead/acid, nickel/cadmium, lithium and mercury batteries.
- ✓ Caps must be tightly placed on all batteries
- ✓ If charged, the terminals must be covered with duct tape.

# Used Batteries

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- Use Campus Mail to send small batteries to EH&S Recycling Center, Z = 6551
- ✓ At University Hospital, return batteries to Biomedical Engineering L-1 room 141
- ✓ Contact EH&S @ 2-6410 for pick-up of large batteries or take car batteries to recycler.

# Used Computer Monitors

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- ❑ The cathode ray tube in computer monitors and televisions contain lead and must be handled as hazardous waste unless they are recycled.
- ✓ Call Property Control @ 2-1183 to have them pick-up the used monitors.
- ✓ Flat screen monitors do not contain lead and are not hazardous.

# Used Computer Monitors

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- ❑ The cathode ray tube in computer monitors and televisions contain lead and must be handled as hazardous waste unless they are recycled.
- ✓ Call Property Control @ 2-1183 to have them pick-up the used monitors.
- ✓ Flat screen monitors do not contain lead and are not hazardous.



CRTs in computer monitors contain lead, are hazardous and can not be thrown out as trash.

Property Control @ 2-1183 will collect them and see that they are properly recycled.

# Used Refrigerant

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□ Refrigerant in air conditioners, refrigerator and other equipment must be removed by a certified technician before disposal. Call campus operations for assistance in getting a contractor to remove refrigerant.

✓ West Campus - Robert Gallagher 632-6412

✓ East Campus – Frank Lombardi 444-7962

The requesting department will be liable for the charges.

# Any Questions

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