

The Waste-Paper

The Hazardous Waste Disposal Monthly Update

Volume 7 Issue 9

September 2005

Are You New Here?

If Eating Clubs and black squirrels have you scratching your head, chances are you're new to the Princeton Community. If so, there are a few things you should know about the hazardous waste program here at Princeton.

What is Hazardous Waste?

Unwanted chemicals are considered hazardous waste if they are:

- Ignitable (flammable, oxidizer, etc.)
- Reactive
- $\text{pH} < 2$ or > 12.5
- Contain certain metals or organics (see web page for more information and chemical lists)

Packaging Chemical Wastes

Place chemical waste in sealed containers that are compatible with the chemical being stored (e.g. no hydrofluoric acid in glass). Fill containers completely, leaving headspace for expansion.

Keep containers closed except during actual transfers. Do not leave open funnels in hazardous waste accumulation containers.

Similar wastes may be mixed if they are compatible (e.g. many flammable liquids).

If you routinely generate significant quantities of compatible chemicals, bulking of waste in five-gallon carboys (**white** carboys for flammable solvent, **blue** carboys for non-solvent) is encouraged. Carboys are available at no cost at the E-Quad, Frick and LTL stockrooms and through EHS.

Labeling of Chemical Waste Containers

Waste containers must be labeled with the words HAZARDOUS WASTE along with the names and approximate percentages of the principal chemical constituents, preferably using the hazardous waste labels (see graphic above) available through EHS (8-5294).

Use common chemical names, not symbols, structural diagrams or product trade names.

Labeling should be accurate and legible and must include the name of the responsible person or lab and

an extension where someone who is knowledgeable about that specific waste can be reached on the day of the pickup.

Storing Chemical Wastes

Keep the labeled, sealed containers of waste in your laboratory until the scheduled waste pickup. Separate incompatible wastes by storing in separate areas or using secondary containers. Use secondary containers for wastes stored near sinks or drains (including cup sinks).

Disposal Procedure

Chemical waste pickups are generally held on the last Thursday of each month. Bring your containerized waste to your building's designated collection area the day before that month's scheduled pick-up.

Keep in mind, the last Thursday can fall as early as the 22nd of the Month.

HAZARDOUS WASTE		
Federal & New Jersey Laws Prohibit Improper Disposal		
Department _____	Phone _____	
Lab Group _____		
Responsible Individual _____		
Date Placed in 90 Day Storage _____		
	Contents _____	Approximate % _____
	_____	_____
	_____	_____
Use IUPAC _____		
Nomenclature _____		
	Hazard Class (if known)	
1. Poison	4. Oxidizer	7. Sensitive to Stock, Friction, Air or Water
2. Flammable Liquid	5. Corrosive	
3. Flammable Solid	6. Peroxide Former	
896		

There are four main waste pickup sites:

- *Frick loading dock (Chemistry, Psychology and Visual Arts):* Drop off wastes between 1:00 and 2:00pm on the day prior to the pickup or make arrangements with Kevin Wilkes in the Chemistry stockroom.
- *E-Quad and Bowen:* Bring wastes to Room 7 on the loading dock between 2:00 and 3:00pm the day prior to the pickup. For special arrangements, see Joe Laskow or Joe Palmer.
- *LTL Loading Dock (Molecular Biology, Geosciences, LSI and EEB):* Bring wastes to room 033 between noon and 4:30pm on Wednesday and 8:00 – 9:00am on Thursday. For special arrangements, see Michael Fredericks.
- *Jadwin Hall (Physics):* Bring waste to room 125 the day before the waste pickup. Check in with Joe Horvath.



Waste Disposal Costs

Environmental Health and Safety (EHS) coordinates and pays for routine chemical waste disposal. Departments or laboratories may be expected to share costs for extraordinary services, such as characterization of unidentified chemicals, remediation of contaminated equipment, or large-scale chemical cleanouts that involve labor from our waste contractors.

Special Problems

Unidentified or unlabeled chemical wastes cannot be legally transported or disposed. The responsibility for correctly identifying waste rests with the person generating the waste. Do not bring unidentified wastes to the pickup site. Contact EHS for guidance. The department or laboratory will be charged for any necessary testing required by the waste contractor.

General Recommendations

Don't purchase more of a chemical than you expect to use in the foreseeable future.

Scale down experiments to a practical minimum to reduce the total amount of waste generated. Where possible, substitute with less hazardous materials

Dispose of your wastes at the completion of a project - don't abandon them for someone else to handle.

For More Information

See the [EHS Chemical Waste Disposal](#) web pages for more information, including

- Ethidium bromide
- Batteries
- Computers and equipment
- Compressed gases
- Empty chemical containers
- Biological and medical wastes
- Sharps disposal
- Radioactive wastes
- Drain disposal policy
- List of non-hazardous wastes
- Lists of hazardous wastes
- Pollution prevention opportunities

For consultation or additional questions, contact EHS:

EHS HAZARDOUS WASTE CONTACTS	
Main Office	8-5294
Steve Elwood (Chemical & Radioactive Waste)	8-6271
Marcia Leach (Waste-Paper)	8-5296
Don Robasser (Biohazardous Waste)	8-6256
EHS Web Page http://www.princeton.edu/ehs	

Environmental Audit Scheduled

To help ensure that we are continuing to maintain a high level of environmental compliance, the University has hired Woodard and Curran, a highly regarded environmental consulting and engineering firm, to conduct a multi-media environmental audit of Princeton University. Since 1998, Woodard and Curran has conducted nearly 200 compliance audits at colleges and universities.

The Woodard and Curran audit team will be on campus conducting inspections during the week of October 24, 2005. The audit team will visit the following areas:

- At least one laboratory for each principal investigator in all science and engineering departments, focusing on chemical storage and hazardous waste activities.
- All other chemical waste producing areas (chemical storage and waste activities), including
 - Grounds and Buildings Maintenance
 - Energy Plant
 - Facilities - Engineering and Construction
 - Forrestral Campus
 - Athletics
 - Visual Arts
 - Library
- Areas that generate, collect and/or store universal wastes (e.g., fluorescent bulbs, batteries, computer monitors, and other electronic equipment)
- Areas with underground storage tanks



The audit team will inspect the area and will interview individuals in the area. The inspectors may visit additional areas, as needed, to audit air, water, spill prevention, PCB and asbestos activities.

EHS is conducting pre-audits of chemical storage and waste management in these areas over the next few weeks and will share the results with the appropriate contact people in each department. We ask for your full cooperation in this process.

If you have any questions or concerns or would like a copy of an audit preparation checklist, feel free to contact Robin Izzo (rmizzo@princeton.edu or 258-6259) or Steve Elwood (selwood@princeton.edu or 258-6271).

Based on inspections conducted since the 2001 audit conducted by the EPA, we expect to find a high level of compliance.



The Waste-Paper is distributed to departmental contact persons in hard copy or e-mail approximately one week in advance. If you would like to be added to the distribution, contact Marcia Leach at marcians@princeton.edu or 8-5296.