
The Waste-Paper

“A Waste is a terrible thing to mind”

Volume 18 Issue 7

July 2015

Transport of Hazardous material on Princeton’s Campus

When transporting hazardous materials within the Princeton University campus, be sure to take precautions to prevent accidental spills of material particularly in public areas within campus buildings and exterior walkways.

Moving hazardous materials via motor vehicle on or across public roads is illegal without proper training and credentials. The location of stock rooms, building tunnels, and campus lay-out minimize the need for the transportation of hazardous materials outside of campus buildings. While moving materials between campus buildings please follow the practices detailed below:

Biohazardous Material

- Transport biohazardous material in a rigid primary (specimen) container that is leak-proof and secured with a tight-fitting cap.
- Place the primary container(s) in a secondary transport container that is also sealed and labeled with a biohazard symbol. The secondary container must be sturdy enough to remain closed should the container be dropped.
- Add sufficient absorbent to the second container capable of absorbing the contents of the first container in case of primary container leakage.
- Carry a pair of clean disposable exam gloves when transporting biohazardous materials.
- Avoid transporting materials through public gathering spaces, eating areas and break rooms.
- The Institutional Biosafety Committee (IBC) and the Institutional Animal Care and Use Committee (IACUC) must approve of intramural transport of experimentally-infected animals.
- Recommended secondary container for test tubes/vials:
 - Nalgene Biotransport Carrier <http://www.thermoscientific.com/en/product/nalgene-biotransport-carrier.html>
 - Less expensive options include Plano tackle, ammunition or field boxes with O-ring seals, available at various sporting goods stores and through Amazon.

Chemicals

- Containers must be compatible and suitable for transportation and storage of each material.

- Bottles and solid containers should have a threaded cap securely in place. Cylinder moves are permitted by cylinder cart only. Always remove regulators prior to transporting cylinders and ensure the protective valve cap is in place.
- Secondary containment should be utilized to prevent potential breakage and to contain spills. Rubberized bottle carriers, enclosed bottle carriers, and high-sided trays/basins transported on carts are all acceptable forms of secondary containment.
- Do not touch door handles, railings, or elevator buttons with gloved hands. Ensure secondary containment vessel is contamination free and carry a pair of disposable gloves as a precaution.
- Avoid transporting materials through cafe areas or break rooms. Travel directly to the ultimate destination.



**July’s Waste Disposal Drop Off:
Wednesday, July 29, 2015**

Lewis Thomas loading dock

- Collection room open from 2:00-4:00 PM
- Coordinators: [Michael Fredericks](#) (8-1351) and [Bob Koenigsmark](#) (8-4123)

E-Quad room 7 (E-Quad and Bowen)

- 2:00-3:00 PM Coordinators: [Joe Laskow](#) (8-4739) or [Phil Curry](#)

Jadwin Hall Waste Room

- 9:00-10:00 AM Coordinator: [Phil Fairall](#) (8-3913)

Hoyt Laboratory/185 Nassau

- Waste collection is on an as-needed basis.
- Contact [Kyle Angjelo](#) (8-2711) to make arrangements

Keeping Streams Clean: Waste Streams

There are many aspects associated with being a responsible steward for safety and the environment. This is particularly so with regard to chemical waste management.

One way to minimize wasteful energy consumption and unnecessary cost in hazardous waste disposal is by minimizing cross-contamination or comingling of waste streams. Keeping waste streams ‘clean’ not only reduces

disposal costs, but may also lead to energy savings. Though EHS provides large containers for the bulking of compatible waste material, it is imperative that you only combine wastes that are similar in nature, i.e., materials that do not cause an otherwise routine waste stream to take on additional properties or unique hazards.

Whenever possible, solids and liquids should not be combined; e.g., syringe needles with organic solvent. Likewise, immiscible liquids should not be combined in the same container. Avoid needlessly adding toxic materials (e.g., heavy metals) to flammable solvent waste. Highly toxic liquids such as bromine present unique hazards and should not be combined with common flammable solvent waste streams, such as hexane.

All small quantities of acutely hazardous substances should be collected and stored separately (e.g., cyanic compounds). Any waste categorized as [P-listed waste](#) by the US EPA should not be combined with any other waste. Take care to minimize such wastes whenever possible.



Non-regulated, non-contaminated laboratory debris (e.g., chemical reagent delivery packaging) must never be comingled with hazardous chemical waste. Regulated contaminated debris collection containers should only be used to collect gloves, paper towels, and debris that are known or suspected to be contaminated.

The principle of keeping waste streams clean not only applies to hazardous waste, but also to universal waste and general recycling. Rechargeable batteries collected as universal waste at various campus locations are sorted by type and collected in specifically labeled containers.

You have the power to reduce costs, save energy, and contribute to the preservation of the environment by minimizing volume and keeping your waste streams clean.

Why We Do It and Who We Answer To

As EHS strives to inform and educate the research and support staff of the appropriate chemical waste management methods, you may be asking “why would they ask me to do it that way?” The answer to your question is somewhat complex. The fact is, the University is responsible for compliance with multiple state and federal requirements and must answer to these regulatory authorities.

EHS takes the time to analyze all applicable regulations and requirements and provides to the University community a condensed list of actions that each generator must follow to maintain overall compliance with these

often confusing, lengthy regulatory documents. EHS publishes the condensed health and safety information extracted from the regulatory documents and posts the information, organized by discipline, on the EHS website (<http://ehs.princeton.edu>).

There are various requirements that must be followed pertaining to management of hazardous chemical and regulated medical waste, transportation of waste and chemical reagents, storage of chemicals and gas cylinders, radioisotope use and radiation, research pertaining to clinical studies and almost every other aspect of research and tasks performed within University facilities.

Below are listed three examples of regulatory authorities that have influence on our University operations.

OSHA (Occupational Safety & Health Administration)

Agency within the US Department of Labor created to assure safe and healthful working conditions by setting and enforcing regulatory standards. OSHA covers topics ranging from industrial ventilation, hazard communication, noise control, and beyond.

NJDEP (NJ Department of Environmental Protection)

State agency created to create, audit and enforce laws pertaining to natural resource preservation, hazardous chemical and regulated medical waste management, and environmental sampling and remediation programs.

PHMSA/IATA (Pipeline and Hazardous Materials Safety Administration - DOT/ International Air Transport Association)

is an agency of US Department of Transportation which regulates domestic transportation of hazardous materials and pipeline transportation. PHMSA's goal is for safe, reliable, and environmentally sound transportation of goods. IATA is a trade association that regulates international transportation of hazardous materials.

<i>EHS HAZARDOUS WASTE CONTACTS</i>	
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