

A. BEFORE YOU START

One month before you move, begin planning and review what you have on hand.

- I. Review this Relocation Guide.
- II. Check the contents of all your cabinets and shelves.
- III. Check your storage areas.

Are there chemicals you no longer need, or that are outdated? Return these retrograde materials to your Department stockroom for possible reuse. This will cut down on university disposal costs and reduce storage requirements in your new facility. Identify outdated, unusable or unwanted chemicals, and surplus materials you are unable to use and send waste disposal requests to EH&OS.

Are there unknowns or unlabeled chemicals? Attempt to relabel unmarked containers as soon as they are located. Once moved, their identity may be lost. If there are true unknowns, call EH&OS at 4-2150 for assistance in identification.

Are there "surprises" left under the fume hoods or tucked behind equipment? Look for old supplies from past lab staff and students. Most labs have relics which should be disposed of before moving to the new location.

Are there old lecture bottles or other gas cylinders? Gas cylinders and lecture bottles no longer in use should be returned to the stockroom. You may be paying a demurrage charge for cylinder rental while the cylinder is in your possession. Many corrosive gases can attack the valve system preventing operation. Corrosive gases should not be stored for more than six months after initial use.

Check out the location to which you will be moving. Where will you place your large equipment and cabinets? Are there sufficient electrical outlets where you need them? Have seismic restraints been installed on existing shelves? Are there any special facility needs that should be accomplished prior to occupancy? Have previous occupants (if any) abandoned any equipment or materials?

Never move open containers of hazardous materials in elevators.

Wear appropriate personal protection for the materials being handled (safety glasses or goggles, lab coat, gloves, closed-toe shoes, etc.).

Complete the emergency notification placard at the new lab entrance.

Post any required warning signs (radioactive materials, biohazard, etc.). Review the location of safety showers, eyewashes, fire extinguishers, and all available means of exit from laboratories and the building.

B. COMMON CAUSES OF ACCIDENTS DURING PACKING AND TRANSPORT

EH&OS handles and transports thousands of containers of hazardous chemicals per month. In our experience, most acts that result in chemical spills or accidents during transport **are avoidable**. They include:

- 1) Knocking bottles against each other- the bottom of the containers often drop out.
- 2) Attempting to lift containers of bottles by the caps. Caps may be loose and come off causing the container to drop.
- 3) Placing bottles in boxes without adequate packing.
- 4) Trying to save trips by stacking boxes too high on carts, trying to move too much at once.
- 5) Lifting boxes by the sides without supporting the bottoms.
- 6) Use of makeshift carts, e.g., stacking boxes on chairs with wheels.

C. REPORTING INJURY OR ILLNESS

In the event of an injury or illness, immediately notify your Supervisor. Follow up with "Report of Injury" form within 24 hours of the occurrence. Serious injuries and illnesses should be immediately reported to EH&OS at 4-2150.

D. CHEMICAL SPILLS

YOU SHOULD NOT ATTEMPT TO CLEAN UP A SPILL WITHOUT ASSISTANCE FROM EH&OS IF:

- (1) You are unsure how to proceed.
- (2) You feel it might be unsafe to proceed. Don't take chances and jeopardize your health and that of others.
- (3) You do not know the identity of the spilled material.
- (4) You do not have adequate or proper materials for clean up.
- (5) The spill is in an area which precludes easy access to the spilled material (e.g., on shelves with other materials)
- (6) You feel any physical symptoms of exposure.

INSTEAD:

- (1) Isolate the spill. Notify others of the spill.
- (2) Evacuate the area. Close doors if the spill occurs within the laboratory. If the spill occurs in the hallway, quickly notify personnel in nearby labs. Air movement in laboratory buildings usually travels from the corridor to the labs.
- (3) If the spill occurs outdoors during transport of chemicals, remain upwind. Warn people away from the spill and direct them to walk upwind. Have one person remain near the spill to alert passersby of the hazard while assistance is sought from EH&OS.
- (4) Notify EH&OS immediately. Call from a safe location (i.e., not in the room where the spill occurred). **On campus**, call EH&OS at 4-2150 (8:00 AM to 5:00 PM) or UPD at 4-2222 after hours and on weekends.
- (5) If someone has been splashed with a chemical, immediately begin flushing the contaminated area with water. Continue to flush the affected area for 15 minutes. Seek medical attention if a potential health concern exists. If possible, bring along a Material Safety Data Sheet (MSDS) and call ahead to the emergency room to facilitate prompt and correct treatment of the injury.

E. PACKING CHEMICALS TO BE MOVED

EH&OS recommends that the following procedures be used when packing chemicals for transport:

- (1) Wear personal protection appropriate for the materials being handled (safety glasses, lab coat, gloves, closed-toe shoes, etc.).
- (2) Make sure chemical containers are properly labeled and are not likely to leak in transport. **Do not move unlabeled ("unknowns") or leaky containers.** Unknowns cannot be disposed of until the contents are identified.
- (3) Separate chemicals into compatible groups and provide separate labeled boxes for each group. **This is extremely important should boxes be dropped or damaged in transport.** Since packing materials for moving requires substantial individual handling, it is a good time to lay the ground work for segregated storage in your new facility. See the CHEMICAL STORAGE GUIDELINES section for more details on inventory and segregation.

Separate chemicals into these categories:

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| Caustics (bases) | Poisons (toxics) |
| Acids | Oxidizers |
| Flammables (including organic acids) | Water Reactives |
- (4) Use sturdy partitioned boxes or pack chemical containers. To prevent breakage and to contain spills, cushion the containers with absorbent materials such as vermiculite. Packing boxes may be borrowed from EH&OS.
 - (5) Leave sufficient room to completely close the box. Do not allow protruding bottle necks and stems. Boxes that cannot be stacked are not suitable for transportation (or disposal).
 - (6) For ease and safety when transporting chemicals, limit box size to approx. 18" per side, and don't over pack.
 - (7) Refrigerated materials should not necessarily be boxed together. Instead separate them into hazard class or handle them according to their special requirements.
 - (8) Take care not to stack boxes too high. Secure cartons in the truck so they cannot shift during transport. Use tie-downs if needed.
 - (9) Each vehicle must contain a complete inventory of chemicals being transported.
 - (10) MSDSs should be readily available for each chemical being transported in case of accidental exposure or spill.

F. MOVING THE PACKED CHEMICALS

Before moving your chemicals, take time to read the CHEMICAL SPILLS section of this manual. If your move is to an adjacent building, use a good hand-truck, dolly or a cart whenever possible. For greater distances or off-campus relocation, contact EH&OS at 4-2152 for assistance. EH&OS can provide a truck and a technician to assist you. Do not use personal vehicles to transport chemicals.

G. CHEMICAL WASTE DISPOSAL

Federal and state regulatory control over hazardous waste has become increasingly stringent in recent years. This situation has dramatically increased the complexity of handling hazardous waste generated by the campus community.

These guidelines have been prepared to assist employees in packaging chemical waste materials only. Other regulations must be observed whenever radioactive materials are handled.

Never dispose of any solid or liquid chemical or other hazardous material in the general trash or down a drain. All chemical waste must be transferred to EH&OS for disposal. Contact EH&OS at least one day prior to the required pickup. Requests for waste pickups may be made by phone, fax, or voice mail. To avoid delay, it is important that your message is concise and clear. Building name, room number, contact name and phone number, along with the type, characteristics/constituents and quantity of waste to be picked up must be clearly stated on the Hazardous Waste Pick-up form.

FOR HAZARDOUS WASTE PICKUP:

Fax.....4-2156

Phone/Voice Mail.....4-2152 or 4-2150