Laboratory Move Procedure

*Department of Environment, Health and Safety*

4/6/18
Prior to your lab move

• Contact the Department of Environment, Health and Safety, 919-962-5507 and give us 30 days notice prior to moving.

• If you are moving to an adjacent building, or within your same building, you can safely move your own chemicals.

• If your lab move involves moving chemicals down the road, or there is not a safe path to take, then EHS will arrange for your chemicals to be moved.

• Contact the Office of Waste Reduction/Recycling at 919-962-1142. They will drop off bulk containers for your recycling needs,(glossy magazines, periodicals, etc..).

• Have your department manager contact Surplus Property, 919-962-0662.

• If you intend to discard a chemical hood that has a vent alarm, please contact 962-0259 so the alarm can be removed and returned to EHS.

• If Surplus Property determines that your equipment should be scrapped, it will be taken to the Orange County Recycling Facility at no charge.
Preparing for the upcoming move

- Evaluate all chemicals and make sure they are properly labeled.
- Chemicals are required to have a good leak-proof lid.
- Identify any unknowns if possible.
- Separate chemicals for disposal, from chemicals you want moved to your new location.
- If you have less than twenty chemicals for disposal, use the online waste form for disposal.
- Chemicals to be moved to your new location will be packaged and shipped to your new lab by the waste vendor.
- Once your chemicals have been moved to your new location, the lab occupants will unpack their chemicals and place the empty boxes in an unobtrusive location for our waste vendor to pick up.
- Post the Safety Clearance Form on the entry door to your lab and check items off as completed.
Lab moves are the perfect time to sort through your chemicals and discard old, or expired chemicals.

Please make sure your chemicals have good leak-proof lids, and are labeled properly.
If you find High Hazard and/or Reactive chemicals in your lab, notify EHS and our chemical waste vendor for disposal. **Do Not Handle These Chemicals!!**
Unknown chemicals

*Please try and identify any unknown chemicals in your lab. Check with previous lab personnel if available.
*If truly unknown, notify EHS and do not move yourself.
DEA Materials

At all times, all controlled substances are kept under lock and key, in a substantially constructed cabinet or safe, and are accessible only to authorized personnel. Review the Guidelines for DEA schedule substances.

Keep all Controlled Substance records at least three (3) years.

For disposal of a Controlled Substance, please call our local DEA representative, Nancy Talbert at 733-1765.

Regulations:
Controlled Substances Schedule I through V, and the Drug Codes associated with each controlled substance.

DEA's Chemical Control Program
Mercury Disposal

As the University strives to be mercury free, now is the time to dispose of your mercury: thermometers, metallic mercury, barometers, etc..

Make sure your mercury is well contained and will not possibly leak. Use a ziplock or some other secondary containment.

Our chemical waste vendor will ship this off for recycling!

Use the University [online waste disposal form](#) for pickup.
“Mercury-free at UNC”

• The purpose of the “Mercury-free at UNC” program is to reduce, and if possible to permanently eliminate the use of elemental mercury at UNC-CH. The funds approved for this program must contribute to this goal now, and in the future. Now that you are moving lab spaces, it presents a unique time to make the switch to non-mercury thermometers. Everyone’s help is needed to reach this goal. Therefore by signing, dating, and submitting the application form, the applicant is pledging to:
  – Become more aware of mercury hazards and how to reduce them
  – Survey the workplace for mercury containing items and replace them with mercury-free or low mercury alternative, if available
  – Report spills promptly to EHS (919-966-5507) and
  – Dispose of mercury wastes properly
MERCURY FREE POLICY

Purpose:
Mercury pollution is one of the most significant environmental toxins found in the United States. The Environmental Protection Agency (EPA) and a variety of public health organizations have identified mercury elimination as one of their highest priorities in recent years. Currently at UNC Chapel Hill, elemental mercury is the most commonly spilled chemical on campus. Over an eight year period, roughly seventy percent of chemical spill response/clean-up has involved mercury. As a result, a significant amount of resources is expended each year by University personnel in the remediation of mercury spills. In addition, improper disposal and/or unreported releases of mercury are a threat to the community and can lead to significant regulatory consequences for the University. As a generator of hazardous chemical waste, UNC Chapel Hill has an obligation under federal and state regulations and to the community to reduce the volume and quantity of mercury generated on campus. The University recognizes the threat presented by mercury and is committed to the reduction/elimination of mercury on campus.

Scope:
Principal Investigators and laboratory Safety Supervisors are responsible for identifying mercury containing devices in their laboratory that should be eliminated. Departments are responsible for providing sufficient resources to provide alternatives and implement reduction/elimination of mercury from departmental laboratories. The Department of Environment, Health and Safety is responsible for properly disposing of mercury waste from laboratories and educating the campus about alternatives.

Policy:
All non-essential uses of elemental mercury are to be eliminated from campus laboratories by December 31, 2009. Essential use is defined as: a circumstance where no acceptable alternative for the current use can be located or where it is found that implementation of an alternative would create a significant long-term financial hardship to the department or research project. Laboratories wishing to maintain inventories of mercury can request an exception via the Department of Environment, Health and Safety. In the event of a disagreement over the requested exception, the Laboratory and Chemical Safety Committee will be asked to review and make a decision regarding the request. The Department of Environment, Health and Safety will work in a cooperative fashion with any department found to have an unusually large inventory of mercury-based items to allow phase-ins of alternatives. Examples of laboratory devices that contain elemental mercury include but are not limited to: thermometers, barometers, and manometers. Mercury waste being eliminated should be referred to the UNC Chapel Hill Department of Environment, Health and Safety for proper disposal.

Noncompliance:
The Department of Environment, Health and Safety will begin citing mercury reduction/elimination non-compliance during Collaborative Laboratory Inspection Program (CLIP) inspections in 2010.

Program Oversight:
The Department of Environment, Health and Safety and the Laboratory and Chemical Safety Committee will serve as technical resources for the implementation of this program. The Department of Environment, Health and Safety will also serve to oversee the development and implementation of mercury educational materials with the help of the Office of Sustainability.
Radioactive Materials

Prepare radioactive waste for pickup and use the [online form](#).

Please recycle your lead; lead bricks, source containers, shielding, lead vests and pigs, etc.. Do wipe tests and attach results to your e-102 waste form.

Email the Radiation Safety Department at [radiation_safety_office@unc.edu](mailto:radiation_safety_office@unc.edu) to have your permit changed to reflect your new location.

An exit survey of rooms and equipment is required!

Reference the Radiation Safety Department [website](#).

---

Procedures for Vacating/Moving Laboratory Space

- Written notification to the UNC Department of Environment, Health & Safety is required prior to vacating a lab or moving into a different lab. Prior to moving into a new lab, the room/s must be authorized and posted for radiation use.

- When vacating a lab, remove all sources of radiation from the lab space, source vials, aliquots of radioactive material, experiments containing radioactive material and radiation waste.

- Decontaminate all areas where radioactive material was used, and decontaminate all equipment (refrigerators, freezers, incubators, centrifuges, microfuges, etc.) that contained radioactive material.

- Perform a radiation survey of the whole lab including all equipment that may have contained radioactive material (Geiger counter survey and wipe test survey).

- The Safety Clearance Form (Appendix F) is to be used for rooms/equipment that contained radioactive material, have been decontaminated and surveyed, and are considered safe for any use.

- After survey of equipment and if equipment is to be moved, transferred, surplused or remain in the vacated space, [remove the radiation labels](#) on the equipment, and attach a Safety Clearance Form (Appendix F) to the equipment. This form verifies that the equipment is considered safe for any use. [Contact EHS for new radiation stickers as needed](#) after moving/repairing equipment. **Do not allow maintenance staff or the moving crew to repair/move/transfer equipment with radiation labels affixed to it.**

- Notify Environment, Health & Safety via the [Safety Clearance Form](#) that lab space is ready for a final clearance survey by one of our EHS Safety Officers.

- *Never remove the room sign.* Environment, Health & Safety will remove the room sign after an EHS Safety Officer has completed the final clearance survey of the vacated lab space.

- Call EHS for questions 919-962-5507.
Cylinders

Call your cylinder vendor and arrange for your cylinders to be moved to your new location.

Make sure your cylinder(s) is disconnected, the valve is closed and the valve cap is screwed on.

For non-returnable small lecture cylinders, they can either be disposed of with your chemical waste, or can be moved to your new location by the chemical waste vendor. Even empty, they cannot be thrown in the trash!!

Make sure your new location has the appropriate cylinder strapping or tie-down equipment.
Sharps

Clean out all laboratory drawers and dispose of all “sharp” items: syringes, razor blades, pipettes, lancets, etc..

For chemically contaminated sharps, use a Sharps container, and when full, dispose of in the regular trash. To purchase a metal can;
*If sharps are contaminated with heavy, metals, (mercury, chromium, etc..), submit an online waste form for pickup.

For biohazard sharps, use a Sharps container, label properly, and when autoclaved, dispose of in the regular trash.

For radioactive contaminated sharps, use a poly container and dispose with your dry radioactive waste using the online form.
Glassware

• To dispose of brown empty bottles, (non-broken): deface labels then discard in the normal trash.
• Other glassware that is empty, use plastic-lined cardboard box, tape up when done, then discard in the normal trash.
Surplus Materials

Lab equipment that you intend to discard **must** be decontaminated and the biological or radiation stickers defaced and/or removed. Complete the Surplus Property Clearance sticker and affix to the equipment. Stickers can be obtained from EHS, 919-962-5507.

For other discarded lab equipment, notify your department manager: Call Surplus Property and complete moving forms. If determined by Surplus Property that the material is to be scrapped, it will be taken to the Orange County Recycling Facility at no charge.

**NO LIQUIDS  !!!!**

Any questions, call EHS at 919-962-5507
Laboratory Equipment

Clean and defrost refrigerators and freezers.

Units that may contain refrigerants must be evaluated by Facilities Services Refrigeration Shop (2-1087) to determine if refrigerant needs to be removed. If refrigerant needs to be removed, submit a work order to Facilities Services Customer Service (2-3456). The Department or owner pays for removal.

For equipment that may be contaminated with radioactive material, decontaminate, remove warning stickers, and complete a Safety Clearance Form and attach it to the unit prior to calling. For information, call 2-5507 or see Radiation Safety FAQ.
Laboratory Equipment

For equipment that may be contaminated with chemical or biological material, decontaminate, remove warning stickers, and complete a Safety Clearance Form and attach it to the unit prior to calling. For information, call 2-5507 or see Radiation Safety FAQ.

For equipment (including refrigerators, freezers, incubators, drying ovens) that may be contaminated with chemicals or biological material, decontaminate according to manufacturers recommendations with an appropriate disinfectant. Remove or deface warning stickers, complete a Safety Clearance Form and attach it to the equipment.

When cleaning the incubators in the event of bacterial or fungal contamination, flasks and culture plates shall be moved to a Biological Safety Cabinet. Shelves shall be moved to sink for wipe down with 10% bleach followed by a thorough wipe down with disposable towels soaked in 70% ethanol.
Laboratory Equipment

Biological Safety Cabinets must be decontaminated with formaldehyde gas before they can be moved, discarded, or when it is being left in the lab for another user. If the cabinet is relocated, recertification will be required. Please call 962-5722 to schedule decontamination and recertification of cabinets.

BSL3 laboratories must be decontaminated with formaldehyde gas or vaporized hydrogen peroxide when the laboratory is vacated. Please contact the Biological Safety Division at 962-5507 for information.

Post completed Safety Clearance Form on entry door to lab.
Biohazard Materials: Animal and Human Tissue

Dispose of preserved human tissue. Human tissue in preservative can be left in specimen containers. If there are many specimen containers with the same preservative, the specimen containers should be placed into a wide mouth plastic container for hazardous waste pickup. Submit waste forms online. It must be indicated on the waste form “tissue is non-infectious”. Infectious prions could be present in brain tissue preserved in formalin. Contact the Biological Safety Division at 919-962-5507 for disposal procedure of human brain tissue preserved in formalin.

Dispose of preserved animal tissue. Animal tissue in preservative can be left in specimen containers. If there are many specimen containers with the same preservative, the specimen containers should be placed into a wide mouth plastic container for hazardous waste pickup. Submit waste forms online.
Biohazard Materials: Animal and Human Tissue

Animal and human tissue that is not preserved must be placed in a biohazard bag and autoclaved. Contact DLAM for disposal of animal tissue. Contact the Biological Safety Division at 919-962-5507 for pick up of human tissue after autoclaving.

If cultures are being left behind in the lab, someone has to be responsible for them. Transfer responsibility of samples to:

Questions? Call the Biological Safety Division at 919-962-5507.
Biohazard Materials: Microorganisms and Cultures

For approved biohazard waste collection procedures, refer to the Biohazard Waste Disposal Chart.

All biohazard waste must be treated prior to final disposal. Refer to the autoclave waste treatment policy.

Liquid biohazard waste is to be autoclaved in vented containers on the liquid cycle of the autoclave. Once cool, it can be flushed down the sink.

Users should transfer cultures to back-up incubators prior to beginning the procedures listed below.

The moving and reconnection of incubators will be done in two stages so that cultures can stay behind in back-up incubators until incubators in the new location are up and running.

Schedules should be made to explain in detail the timing of disconnecting /draining/reconnecting for the incubators.

Users will drain incubators and prepare them for moving.

CO2 tanks should be in place in the new building and ready for connection to incubators.

Users will bring water, etc. to the new building and will be responsible for refilling.
Biohazard Materials: Microorganisms and Cultures

Decontaminate all laboratory surfaces with the appropriate disinfectant

After thorough surface decontamination is complete, remove or deface all biohazard and carcinogen signage in the laboratory and on the laboratory door.

If cultures are being left behind in the lab, someone has to be responsible for them.

For biosafety cabinets, (aka “tissue culture hoods”), refer to the Laboratory Equipment section.
Recycle your lab material

Contact the Office of Waste Reduction/Recycling, (919-962-1442), for large quantities, overflows, or confidential paper pick-ups.

Reference their website or a list of what can be recycled.

If you just need a regular recycling pickup before your lab move fill out a Facilities Services Request Form.
Transportation of Hazardous Materials

All biological materials must be transported in secondary containment that is rigid, puncture resistant, leak proof, and impervious to moisture. The secondary container must be sealed to prevent leakage and must be labeled with a biohazard label.

Carts with sides should be used to transport materials. Do not stack materials or overcrowd the cart.

Use indoor hallways to transport materials. Avoid busy, public corridors.

Liquid nitrogen must be emptied from dewars before the dewars can be moved.

If refrigerators or freezers will be moved with infectious material in them, the material in the equipment must be packed in secondary containment. The equipment must be taped or shrink wrapped shut. It can then be rolled down the hall.
Good Neighbor Requirements for Shared Open Lab Spaces

Waste Disposal
• To ensure timely radioactive and chemical waste removal schedule pick up when containers are 75% full.
• Bio-hazardous waste containers including sharps containers should be removed at 75% full and taken to be autoclaved.
• Each chemical waste container must have an associated inventory sheet of its contents do not use abbreviations. Use full chemical names.
• Double containment of liquid waste containers is even more important in a shared lab. Prevent accidents from happening!
• Do not share chemical waste containers with other lab groups as dangerous unexpected chemical reactions could occur.

Labeling
• Label all hazardous material and equipment. Use warning signs to designate particular hazards.

Emergency Response
• Do not block aisles, hallways and exit routes. Placement of small portable file cabinets and mobile carts are prohibited.
• Know the location of your eye wash and safety shower before you need to use them. Keep these areas clear and unobstructed.
• Notify neighbors immediately in the event of a spill. Ask for help from your immediate neighbors and have a communication plan for emergencies.
• Notify neighboring groups that you are conducting experiments using hazardous materials. Consider the worst possible scenario and have a plan for when things go wrong.

Safe Work Practices
• 18 inch clearance from the ceiling is required for storage.
• Fume Hoods shall not be used to store chemicals.
• Organize with your neighbors into floor groups and meet regularly to discuss safety concerns. Required Environment, Health, and Safety annual training can be conducted during these meetings.
• Open collaborative lab spaces require vigilant and continually improving work practices. Consider your laboratory neighbors in all aspects of your work.
• Cross contamination risks are greater in a shared lab space. Use care in performing experiments.
• Notify collaborators of routine maintenance on shared equipment and potential problems from any laboratory devices.
• Practice good housekeeping and universal precautions always. Universal precautions means wearing appropriate PPE even when you think it may not be necessary. Do not take any unnecessary risks. Safety First!
• “Every researcher must understand that it is a matter of teamwork and personal responsibility to maintain a safe laboratory environment.” (Modica, Professional Safety, page 30, July 2007)
PLEASE BE SAFE- CALL 919-962-5507 FOR GUIDANCE