



Laboratory Close-out and Move Procedures

Overview and Responsibilities

Use the following procedures when laboratories, chemical storage areas, or other spaces where hazardous equipment or materials have been used will be vacated due to a **Principal Investigator (PI)** leaving the institution, relocating within the institution, or terminating research activities. In such situations, laboratories and other relevant spaces must be decontaminated and cleared of hazards prior to transfer to the new occupant. The vacating PI and their **Department** are responsible for this. The **Departmental Safety Officer (DSO)** and **University Health and Safety (UHS)** will provide guidance for the laboratory close-out procedure.

If decontamination or disposal of hazardous materials at close-out requires removal services, the responsible department will be charged. Additionally, any regulatory action or fines resulting from improper management or disposal of hazardous materials will accrue to the responsible department.

Process and Time-line

The close-out process is divided into two stages.

- ❖ **As soon as reasonably possible prior to move:**
 - The Department Administrator or Department Head will email the PI setting expectations for lab cleanout. They will attach a copy of this document to the email and copy the DSO.
 - The DSO will set up an appointment with the PI or representative to initiate the close-out. The DSO will include their UHS Research Safety Professional in this meeting.
- ❖ **At moving time:**
 - The PI should ensure that hazardous materials are transported safely to their new location and that the vacated space is free of hazards.
 - The PI or Representative should contact their DSO to schedule a final inspection of the vacated research space. The walk-through inspection should also include UHS. Documentation of approval or action items to complete prior to approval will be provided to the PI and Department Administrator at the conclusion of the inspection by the DSO and UHS Research Safety Professional.

Procedures

Use the [Laboratory Closeout Procedures Checklist](#) to document the process.



Chemicals - All Lab Closeouts

- Ensure that all containers of chemicals are labeled with the name of the chemical, are in good condition, and are securely closed.
- Remove chemical containers from refrigerators, freezers, fume hoods, bench tops, and storage cabinets.
- Hazardous chemical waste must not be sewerred or trashed; waste must be collected for disposal by UMN Hazardous Waste.
- Wash off fume hood surfaces, chemical cabinets, and countertops.

Leaving the University

- Determine which chemicals are usable and transfer responsibility for these materials to another party who is willing to take charge of them. These chemicals MUST be relocated before check-out.
- If a new user cannot be found, the chemicals must be disposed of as hazardous waste. Detailed instructions are available in the [Chemical Waste Disposal](#) section of the UHS website. To ensure timely removal of chemical waste, this process must be started at least a month before departure from the laboratory. Chemical pickup must be completed before the laboratory is vacated. Any chemicals left behind will be removed for a fee to the Department responsible for the space by UHS.

Moving to a new campus location

UHS will move Chemicals for your lab but please follow the guidelines below:

- Segregate hazardous chemicals by the primary hazard class. The following general segregation requirements should be followed:
 - Organic chemicals (flammable liquids/solids) packaged separately from oxidizers
 - Acids packaged separately from bases
 - Acids packaged separately from toxins
 - Reactive chemicals (e.g., spontaneously combustible, dangerous when wet, organic peroxides) and highly toxic chemicals (e.g., acutely hazardous substances, particularly hazardous substances) should be packaged separately and not mixed with any other hazard classes.
 - If additional guidance on segregating hazardous chemicals is needed, contact UHS (612-626-1604, hazwaste@umn.edu). They will also document, package, and remove chemicals for a fee. Please contact them for a free consult and a quote for removal.
- Completely enclose containers in sturdy cardboard boxes. Boxes are available through University Stores. Large carboys and 5 gallon pails do not need to be placed into boxes but have to be in secondary containment.
- When packing chemicals into boxes, use cushioning material (e.g., pads, vermiculite, cardboard dividers, etc.) to separate the inner containers so that when the box is handled, there is no glass on glass contact.



- Tape the box shut and tape a copy of the box inventory and a [hazardous waste move label](#) to the box or pail to alert the moving company that these are Hazardous Materials not to be moved by them. Please fill in the labels completely.

Controlled Substances

Leaving the University

- Dispose of controlled substances following the directions on the [UHS disposal website](#). Keep the substances locked in the safe until they are picked up for disposal.
- If there is no other Unit laboratory in the same building, the Unit Registrant must send a letter to the [Minneapolis DEA office](#) requesting cancellation of the DEA registration and informing them of the drug disposal. Include in the letter the name of the Unit Registrant, DEA registration number and expiration date, lab/building address and effective date of the cancellation.
- If applicable (ie. the PI closing their lab is the DEA registrant), send unused DEA Forms 222 to the [Minneapolis DEA office](#) via certified or registered mail. In your cover letter to the DEA, list the unique numbers on Form 222 and save a copy of the letter in your controlled substances records.
- Notify the UHS Controlled Substances Manager (cshelp@umn.edu) that the laboratory is no longer using controlled substances.

Moving to a new campus location

If you are the DEA registrant:

- **New storage site has to be approved by DEA before controlled substances can be relocated**
- Change of address can be requested either via mail or by modifying the registration [online](#).
- By Mail: Letter on University of Minnesota letterhead and signed by the registrant. The letter should include the following information:
 - Registrant name and registration number,
 - Current building name and address,
 - New location building name and address
 - Move Date



Local DEA address, where the letter should be sent:

Drug Enforcement Administration
100 Washington Ave. So.
Suite 800
Minneapolis, MN 55401

If you are an authorized user:

- Make sure your departmental DEA registrant has a registration for the building you are moving to.
- A safe has to be installed in your new lab *before* your controlled substances get moved.

For any questions about controlled substances contact the UHS Controlled Substances Manager (cshelp@umn.edu)

Gas Cylinders

- Disconnect gas cylinders from regulators and equipment and cap all cylinders.

Leaving the University

- Return gas cylinders, whether empty or partially filled, to the manufacturer or distributor through which they were purchased. If originally purchased through U Market, contact them at (612) 624-4878 to make arrangements for return of gas cylinders.
- Empty cylinders should be clearly marked as empty to avoid confusion when it comes to return or disposal of the cylinder. Do not vent full or partially used cylinders into fume hoods as a means of disposal.
- If cylinders are non-returnable, consult the [Hazardous Waste Guidebook](#) for disposal instructions.

Moving to a new campus location

- UHS will only move small, non-demurrage cylinders (e.g., lecture bottles).
- Contact U Market at (612) 624-4878 for assistance with moving large cylinders.
- For liquid nitrogen cylinders, contact the lab vendor for pick-up of cylinders in the current lab and delivery/relocation of cylinders and the reconnection in new location.
- Do not label compressed gas cylinders with mover's labels.



Human and Animal Tissue

Leaving the University

- If samples must be saved, locate an appropriate researcher to take responsibility for them and notify your Department Head and DSO as to who is taking responsibility for them.
- Remove fixed tissue from preservative before disposal.
- Dispose of chemical preservatives as hazardous chemical waste (see Chemical Disposal above).
- Dispose of all human pathological waste through the university's [Bequest Program](#). Call (612) 625-1111 for proper procedures.
- Place animal tissue and remains in sealed pink digester bags and then in designated Research Animal Resources (RAR) animal coolers. For cooler locations contact Research Animal Resources (RAR) at (612) 624-9100
- Defrost and clean refrigerators and freezers.
- If appropriate biological waste disposal is uncertain, contact Biosafety and Occupational Health Department at (612) 626-6002.

Moving to a new campus location

- Each lab must empty refrigerators and freezers before their scheduled move time. Place contents into a suitable cooler. Label the refrigerator or freezer with the mover's label and the cooler with the [UHS label](#). **Note:** An exception may be made for freezers. At the lab's discretion, this equipment may be moved with contents inside. However, it is important that you realize that the equipment will be jostled and possibly tipped to a 45 degree angle. If you choose to move this equipment with contents loaded, it is highly recommended that you secure items so they do not shift during the move.
- UHS will move coolers to the new location as quickly as possible and additional scheduling will likely be necessary. However, UHS does not guarantee that the contents will remain at proper temperatures.

Infectious Agents, Synthetic or Recombinant Nucleic Acids, and Toxins of Biological Origin

Leaving the University

- If samples or stocks must be saved, locate an appropriate researcher to take responsibility for them and notify your Department Head and DSO as to who is taking responsibility for them.
- If an autoclave is available to decontaminate biological waste, place all microorganism stocks and culture plates in a clear autoclave bag and follow the procedures outlined in the [Autoclaving Biological Waste](#) fact sheet. If no autoclave is available, place material in a red biohazard bag for pick up.
- For toxins of biological origin, follow approved decontamination procedures as outlined in the [Guidelines for Work with Toxins of Biological Origin](#)



- Decontaminate liquid biological wastes and wipe down all potentially contaminated surfaces according to the procedures outlined in [Biohazards Decontamination & Spill Clean-up](#).
- Clean and decontaminate incubators, centrifuges, drying or curing ovens, refrigerators and freezers according to the procedures outlined in [Preparing Lab Equipment for Service, Transfer, or Disposal](#).
- Biosafety cabinets must be gas decontaminated by an outside contractor before disposal or being sent to ReUse.
- If appropriate biological waste disposal is uncertain, contact Biosafety and Occupational Health at (612) 626-6002.

Moving to a new campus location

- Always pack these materials in a leak-proof sealed primary container within a leak-proof sealed secondary container. If the primary container is glass, the secondary container must be a sealed, rigid, non-breakable container.
- Place sufficient absorbent material between the primary and secondary containers to absorb the volume being transported.
- Place a biohazard sticker on the container with the agent name and the name and phone number of contact.
- If you have an IBC protocol make sure to amend it

Radioactive Materials

Leaving the University

Prior to close out of a radioactive materials use area and/or a radioactive materials use permit, it is the responsibility of the department and the authorized permit holder to assure that the following steps have been completed:

- Package all radioactive materials (stock vials, sealed sources, lead containers/shields, and wastes) and label them in accordance with the Radiation Protection Division (RPD) procedures for pickup as radioactive waste, or for transfer to another permitted use area.
- Prior to the transferring radioactive materials to a new location, notify the RPD (612) 626-6002 to obtain authorization for the transfer and to assure that the new use area is properly posted and permitted by RPD.
- Log into [Isotrack](#) to arrange for pickup of all radioactive wastes through the RPD.
- Following removal of all radioactive waste and stock materials, perform a contamination survey (and if appropriate a GM instrument survey) of all former storage and use areas within the laboratory or under the permit to be closed out. NOTE: Areas of potential residual contamination include refrigerators/freezers, centrifuges, water baths, hoods, sinks, floor areas under waste containers, etc.



Also, if there are contaminated areas or equipment in the laboratory, they must be decontaminated. A follow-up survey must be made of the decontaminated areas and the results included in the above survey.

- Provide the Department Head and the RPD with a copy of the final contamination survey.
- Schedule the Radiation Safety closeout survey by RPD (612) 626-6002. Do not allow further use of room until the RPD closeout survey is complete and the radiation caution door posting is removed by RPD.
- If the permit holder fails to satisfactorily complete the above steps, the Department of the permit holder will be responsible for the completion of (or payment of costs to complete) the required closeout steps.

Moving to a new campus location

Contact the Radiation Protection Division (612) 626-6002 for guidance on how to properly move radioactive materials.

Mixed Hazards

- Occasionally it is necessary to dispose of materials that contain more than one of these hazards (chemical, radioactive or biological agent). Contact UHS at (612) 626-6002 for assistance.

Equipment

Leaving the University

- If laboratory equipment is to be left for the next occupant, clean or decontaminate it before departing the laboratory following procedures in "[Preparing Lab Equipment for Service, Transfer, or Disposal](#)".
- If exhaust or filtration equipment has been used with extremely hazardous substances or organisms, alert UHS and Facilities Management.
- If laboratory equipment is to be discarded, be aware that capacitors, circuit boards, transformers, mercury switches, mercury thermometers, radioactive sources and chemicals must be removed before disposal. Contact Chemical Waste at (612) 626-1604 for assistance or go to the [Facilities Waste Disposal Guide](#) for specific instructions.
- Equipment potentially contaminated with radioisotopes should be surveyed by the Department of Radiation Safety.

Shared Storage Areas

- Of particular concern are shared storage units such as refrigerators, freezers, cold rooms, stock rooms, waste collection areas, etc., particularly if no one has been assigned to manage the unit. Departing researchers must carefully survey any shared facility in order to locate and appropriately dispose of their hazardous materials.



Other Resources:

Link for Checklist

Request disposal bins from Facilities Management (4-2900) for (keep separate):

- Paper/books/magazines
- Small non-working electronics, computers

Working Equipment, large items, and lab glassware in good condition can go to ReUse by dropping it off at a [loading dock](#).

Broken Equipment can be sent to Recycling by dropping it off at a [loading dock](#).

A [sheet](#) with contact info and an EFS chart string has to be attached to all equipment being sent to ReUse/Recycling. A per pound charge will be applied.

The Hazardous Waste Group is available to help with consultation and provide packing materials. They will also package chemicals and remove them for a fee. Please contact them at (612) 626-1604 for a free consult and a quote for removal.

Facilities Management will clean floors and carpet (612) 624-2900 after the move

An outside Contractor can be hired to clean benches, cabinets and fume hoods:

Mavo Systems
c/o Rick Goodmanson
Project Mgr/Estimator
Specialty Cleaning
[\(763\) 788-7713](tel:7637887713)