



ENVIRONMENTAL HEALTH AND SAFETY

Procedure: University Space Closeout

Number 0002

Subject: Area Closeout Procedure for Hazardous Materials

Covered Individuals: All University Employees and Students

Date of Origin: 2019

Utah State University is committed to the health and safety of its students, faculty, staff and visitors as well as the surrounding community and environment. The goal of this procedure is to ensure safe and compliant transitions in university space occupancy. More specifically, in order to protect others from hazardous materials when a person or group vacates a space, this procedure requires university areas and associated equipment, materials and supplies be properly decontaminated, decommissioned, or removed.

Deans and Department Heads are primarily responsible for complying with this procedure. They should work closely with faculty members/principal investigators, and laboratory/workplace supervisors or foremen (USU Policy 337) and staff (employees/laboratory workers) to comply with notification and decommissioning activities as outlined in this procedure.

This procedure outlines the steps for removing hazardous materials and decontaminating equipment and infrastructure as campus spaces are vacated. The process is initiated when the department head becomes aware of a pending departure. The department head will contact the EH&S office as soon as possible, but not less than 30 days, before a person's last day. The EH&S office will schedule a meeting with the departing personnel and a departmental representative to walk through any space to be vacated and discuss tentative plans for all hazardous materials, equipment and supplies. EH&S personnel will work with the departing personnel as they prepare to leave to: 1) remove all unwanted hazardous materials for proper disposal, 2) transfer chemicals, equipment and supplies to other departmental personnel as requested, and 3) instruct or guide laboratory personnel in the decontamination of equipment, supplies and infrastructure to remain in the space. Following the cleanout, but before a person's last day, the department head, or their representative, will review the space with the departing personnel and a representative from the EH&S Office to determine if any additional work is necessary.

APPLICABILITY

This procedure applies to:

- All University spaces owned or occupied by USU faculty, staff or students that use(d) hazardous materials including chemicals, radioactive materials, biologicals, pathogens, controlled substances, compressed gasses, equipment, mercury-containing articles, etc..
- Shared spaces that housed hazardous materials such as:
 - Ancillary spaces (e.g., cold rooms, stockrooms)
 - Communal space
 - Teaching laboratories
 - Storage rooms
- Space that housed hazardous materials that will be converted to another use
- The movement of safety critical equipment including, but not limited to:
 - Autoclaves
 - Automated film processors
 - Biological safety cabinets
 - Flammable/Chemical Cabinets
 - Clean Benches (Horizontal or Vertical Laminar Flow)
 - Compressed Gas manifold delivery systems
 - Electron microscopes
 - Ethylene oxide sterilizers
 - Fume hoods
 - Gamma counters (or gamma detectors)
 - Glove boxes
 - High Magnetic Field Equipment
 - Lasers - Class IIIb or IV
 - Liquid scintillation counters (LSC)
 - Refrigerators/Freezers
 - X-ray equipment

BACKGROUND

This procedure is necessary for the following reasons:

- Hazardous materials (chemicals, biologicals, radioactive materials, needles) left in vacated spaces pose hazards to future occupants, university staff, and construction and renovation personnel.
 - These materials become extremely hazardous when left unlabeled, unidentified, or improperly stored or contained. When unsecured in a vacant space, these materials are also at risk of theft or misuse.
- Equipment, fixtures, furniture and space that has not been properly cleaned and decontaminated may pose a hazard to future occupants and university staff.
- Hazardous materials that are not promptly removed from a vacated space are ineligible for redistribution or recycling making disposal the only viable option. Disposal costs are dramatically more expensive than recycling/redistribution costs due to the need for extra characterization and conservative handling.
- EH&S oversight of laboratory decommissioning and transfer ensures compliance. If EH&S is not contacted in advance of an area change, there is a risk of unsafe and/or noncompliant handling of hazardous materials. When a space is vacated,
 - The U.S. Environmental Protection Agency requires:

- Knowledgeable personnel properly identify and label all chemicals, samples and containers.
 - All hazardous wastes must be removed.
- The U.S. Nuclear Regulatory Commission requires removal of all radioactive materials and waste. No radioactive material or waste may be unsecured.
- The U.S. Drug Enforcement Agency and the State of Utah require removal of all controlled substances. No controlled substance may be unsecured.
- The Centers for Disease Control and the State of Utah require removal of all human pathogens and infectious waste.
- To ensure all safety critical equipment has been adequately decontaminated and properly moved.

COLLEGE and DEAN RESPONSIBILITIES

The Dean will work closely with Department Heads, EH&S Office and principal personnel to follow the progress as the space is cleaned out and prepared for new occupants. They will determine funding sources, as necessary, in the event of abandoned chemicals and spaces.

DEPARTMENT HEAD RESPONSIBILITIES:

- **Notify EH&S of a Pending Space Change.** Departments must notify EH&S as soon as they are aware that a faculty member/principal investigator, or laboratory/workplace supervisor/foremen will vacate a space that has housed hazardous materials. EH&S notification is required even if the space is to be used by another person within the Department for similar activities.
 - Notify EH&S prior to reassigning vacated space that has housed hazardous materials.
 - Notify EH&S before initiating construction or renovation in any space that has housed hazardous materials.
- Department Heads will work closely with the EH&S Office and principal personnel to;
 - Ensure university equipment, fixtures, furniture and space are adequately decontaminated for transfer to other departmental personnel or incoming personnel.
 - Ensure that departing personnel comply with all responsibilities as listed below.
 - In situations where the Principal Personnel fail to meet the requirements below, the Department Head will be responsible for identifying funds to cover decontamination and disposal costs.

PRINCIPAL PERSONNEL RESPONSIBILITIES

- Notify EH&S at least 30 days prior to vacating or remodel a space where hazardous materials have been used or moving safety critical equipment. This will help ensure the space and equipment is clean and ready for future use. Please note that EH&S notification is required regardless of the future use of the space.
- Decontaminate and ensure safety and compliance of all equipment, fixtures, and furniture to remain in the space. All decontamination activities must be performed by persons knowledgeable of the hazards and properly trained. Following decontamination procedures, the EH&S Office must be contacted prior to principal person's departure from the university to verify completeness.
- Characterize all hazardous materials and arrange for their proper disposition by labeling or marking all hazardous materials, equipment and supplies as per Environmental Health and Safety procedures for disposal and decontamination of materials.

- Arrange with EH&S for the disposal of all unwanted materials, equipment or supplies by submitting a hazardous waste pick up request through the EH&S website. If materials, equipment or supplies are to be transferred to other departmental person, the Department Head must be notified by;
 - Written documentation of transfer
 - Verification that the receiving departmental personnel agree to accept
 - Inform EH&S prior to the shipment or movement of any hazardous material, especially those requiring transportation outside of buildings.
 - If EH&S assistance is needed, complete the Shipment Request form found on the EH&S web site.
- Meet with EH&S personnel and the Department Head to verify completion of cleanout
- If these procedures are not followed, EH&S will arrange for the proper identification, segregation, disposal and decontamination.
 - **All costs incurred by not following this procedure will be passed onto the Principal Personnel or the Department.**

EH&S RESPONSIBILITIES

- Meet with departing personnel and the Department Head, or their representative, as soon as possible after notification
- Work with departing personnel to provide detailed instructions and guidance for labeling and identification of hazardous materials, equipment and supplies
- Evaluate and provide guidance for the removal of hazardous materials
 - Remove material, equipment and supplies to be discarded
 - Assist with the transfer of material, equipment and supplies to be moved to other areas within the department
 - EH&S will provide trained individuals to assist in moving all hazardous materials outside of buildings. Principal personnel will be responsible for the cost of any special shipping containers (if required) and any shipping charges (if incurred).
- EH&S through funding provided by the VPR Office will pay for the removal and ultimate disposal of all properly labeled and classified hazardous materials, unless:
 - The space contains hazardous materials collected over many years that should have been disposed of in a timely manner. **Costs will be charged to the Principal Personnel's university account or the Department.**
 - Hazardous materials inappropriately left after the space is vacated. EH&S will arrange for the proper identification, segregation, disposal and decontamination. The costs of these activities **will be charged to the Principal Personnel's university account or the Department.**
- Verify that the space is free of hazardous materials and contamination.
 - EH&S will complete this verification in a timely manner, and will provide a written documentation to the department (for new occupancy) or project manager (for space to undergo construction/renovation).

SPECIAL NOTES

Shared Areas

Shared spaces, research groups, and open areas where there is communal work and sharing of equipment and supplies adds an additional level of complexity to cleaning out university space and preparing for incoming personnel. Early EH&S Notification is critical. Following the initial meeting to discuss the clean out plan and time line, EH&S will arrange to meet with all principal persons using the shared space to assure no material, equipment or supplies are discarded or transferred erroneously. All personnel that share the space must be informed of the departure AND agree in writing to assume responsibility for any materials/equipment left in the shared area.

Only those hazardous materials, equipment, and supplies belonging directly to the departing personnel will be removed. All materials used in common will be negotiated and a written plan of transfer or removal will be formulated and signed by all pertinent parties. Equipment and supplies used in common should be cleaned and decontaminated as described above.

Shared spaces may include labs, shops, equipment rooms, storage areas, cold rooms, dark rooms, autoclave rooms, shared laboratories, etc.

Teaching Laboratories

Teaching laboratories are similar to shared spaces where numerous people share material, equipment and supplies. Teaching laboratories are primarily the responsibility of the department. When a faculty member leaves a teaching laboratory the department head and all faculty members using the teaching lab will need to be informed and work collectively to develop a plan for the removal of unwanted hazardous materials, equipment, and supplies. The remaining equipment, supplies and infrastructure should be decontaminated and cleaned for future use.

Routine Housekeeping

All areas on campus, including laboratories and research areas, should routinely utilize the university hazardous waste disposal service. The regular use of this free service will help to maintain a minimal amount of old, unwanted, or expired chemicals at any given time. This will reduce the need for burdensome disposal projects during laboratory closeouts.

Forbidden Activities

Disposing of hazardous materials, liquids or solids (including solvents and wash water used to decontaminate equipment) via the drain, trash or venting in the fume hood is not allowed.

**Appendix A
USU EH&S Laboratory Close-Out
Checklist**

Building: _____ Room: _____ Department _____

Responsible Person(s): _____

Contacts: _____ Phone/email: _____

Relocating: Yes _____ No _____; If so, to: Building _____ Room Number _____

Space re-assigned: Yes _____ No _____; Ownership is being transferred to: _____

Chemical

	Yes	No	N/A
Chemical hoods have been cleared of all chemicals and equipment?			
Chemical hoods have been cleaned/decontaminated?			
Was perchloric acid used in any hood/exhaust device in this lab?			
All signs (hazard, caution, etc.) removed where appropriate?			
All chemicals and controlled substances have been removed or disposed according to USU policy?			
Gas cylinders have been removed according to USU policy?			
Drawers, shelves and cabinets have been cleared and cleaned/decontaminated?			
Countertops have been cleaned/decontaminated?			
Remaining equipment has been properly cleaned/decontaminated?			
Refrigerators and freezers cleaned/decontaminated?			
Emergency contact and hazard information changed on lab door(s)?			

Biological

	Yes	No	N/A
Biological Safety Cabinet have been properly decontaminated?			
Incubators/water baths have been properly decontaminated?			
Biohazard areas have all been properly decontaminated?			
All biological waste has been removed/properly disposed?			
All biological materials have been properly disposed or transferred?			
All biohazard stickers have been removed?			

Radioactive

	Yes	No	N/A
All radioactive materials have been properly transferred to the RSO			
All equipment, glassware, lab benches have been decontaminated			
Lab has been surveyed/cleared of all Radiation Safety issues			

Department Head _____ (signature) Date: _____

Principal Party _____ (signature) Date: _____

Student _____ (signature) Date: _____

Student _____ (signature) Date: _____

Comments:

Send the form to the USU EH&S office. A final laboratory inspection will be conducted by USU EH&S personnel. When all closeout requirements have been satisfied, the form will be signed and a copy provided for department records.

Chemical/Lab Safety Representative

Date

Biological Safety Representative

Date

Radiation Safety Representative

Date

Appendix B – Decommissioning Certification

Utah State University Environmental Health and Safety

Decontamination NOTICE

This equipment's exterior and interior surfaces were decontaminated, and are free of any Chemical, Radiological or Biological Hazards.

This equipment is released for: (Circle one)

Service/Repair

Relocation

Discard

Decontamination performed by: _____

Chemical or disinfectant used: _____

Date of decontamination: _____

Location of equipment: _____

Lab telephone number: _____

Note: For additional information contact the Environmental Health and Safety office at 435-797-2892.

Addendum – department of Biology

- 1 After reviewing the close-out policy the PI:
 - a Is responsible for removing all garbage, and surplusing anything that is not attached to the building (including the stuff left by occupants prior to PI).
 - b Note that sharp objects (scalpels, needles etc.) should be in sealed plastic containers, and broken glass should be boxed, sealed, and put into sturdy trash bags. Sharps and glass can then be placed in dumpsters.
 - c Items should only be left for the next PI if that person has expressly asked for it.
 - d If someone will be moving into the space, all areas must be decontaminated and clean (move-in ready).
 - e If they space is scheduled for remodeling, then only decontamination is necessary

- 2 Before conducting the final walk-through, the PI first completes the EHS checklist, which should then be signed and passed to the Safety committee, at which time a walk-through should be scheduled. A PI who will be the new occupant (if there is no remodel) will have an opportunity to be present.