

Laboratory Closeout Procedures

Purpose and Scope

This program addresses laboratory closures and the associated disposition of hazardous materials. This program is intended to ensure laboratory spaces being closed, relocated, renovated, or vacated are left in a safe condition and that hazardous materials are handled and disposed of appropriately during the closeout process.

Responsibilities

Principal Investigators (PI):

- Notify EHS prior to closing, vacating, relocating, or renovating a laboratory. Thirty (30) days advance notice is requested.
- Ensure chemicals are handled safely
- Appropriately decontaminate any potentially contaminated surfaces or equipment.
- Appropriately remove all chemicals, biologicals, controlled substance, and radiological materials and/or hazards and non-fixed equipment. Contact EHS as indicated in the procedures below for assistance.
- If contamination or hazards are identified by EHS personnel upon lab closeout, the PI will be responsible for removing these hazards.

Department Chair

- Ensure each PI is aware of this program and the procedures listed within this program.
- In the absence of the PI, notify EH&S prior to closing, vacating, relocating, or renovating a laboratory.
- Responsible to address all deficiencies not corrected by the PI.

Environmental Health and Safety:

- Advise PI of precautions to be taken during transfer of biological, chemical, and radioactive materials. Provide other guidance as needed.
- Conduct radioactive stock material transfers if transfers involve movement of such materials between unconnected buildings.
- When contacted for hazardous waste removal, schedule a waste pick up.
- When contacted for a laboratory closeout survey, verify all closeout activities have been completed appropriately. If contamination or hazards are identified, EHS will notify the PI. The PI and Department Chair will be notified by EHS once the closeout process is complete and verified.

Procedures

Closeout procedures for hazardous materials in laboratories include:

Chemicals:

General

- Check refrigerators, freezers, fume hoods, biosafety cabinets, and bench tops, as well as storage cabinets (above and below) for chemical containers and samples.
- For unwanted chemicals, determine which chemicals are usable and if another party is willing to accept the materials.
- If a new user cannot be found, the chemicals must be disposed of properly through EHS Hazardous Materials Management x3333. Under no circumstances may any chemical be disposed of into the drain, sewer, or trash.
 - Ensure that all waste containers of chemicals are properly labeled, sealed, and managed per the EHS [Hazardous Waste Management](#) guidelines.
 - Hazardous waste labels are available through EHS.
 - All lab containers (beakers, flasks, etc.) must be emptied and cleaned.
- Wash all fume hood surfaces and counter tops with soap and water.

Controlled Substances

- At all times, including during the closeout process, controlled substances must remain locked in a substantially constructed cabinet or safe and accessible only to authorized personnel.
- The U.S. Drug Enforcement Agency (DEA) issues controlled substance registrations to individual researchers. Abandonment of a controlled substance is a violation of the DEA permit under which it was held.
- It is imperative that the PI maintain a valid DEA Controlled Substance registration, as a registration is required to dispose of the controlled substances.
- It is not recommended that one PI give their controlled substance to another PI. Disposal of the materials is the best option.
- Lab relocations within WCU require that the PI send an addendum to the DEA with the new locations and expected move date.
- If the PI is retiring or moving from WCU to another university, the drug products cannot be moved and must be disposed.
- EHS cannot take possession of DEA controlled substances. Contact EHS to obtain information on proper disposal methods.
- If the substance(s) is disposed of, include date, manner of disposal, and quantity of substance disposed. Keep disposal records for at least two years.
- DEA exempt preparations may be disposed according to the EHS guidelines. Consult with EHS.

Compressed Gas Cylinders

- Remove gas connections, replace cylinder caps, and return cylinders to suppliers.
- If cylinders are non-returnable, consult EHS for disposal.

Biological Materials

- Dispose of unwanted biological materials per EHSs [Biological Waste Management](#) guidelines.
- Tissues/specimens in liquid preservatives require that the tissue and liquid be separated, and the liquid disposed of as a hazardous (chemical) waste through EHS. The preservative may not be poured down the drain.
- Contact EHS for disposal.

Radioactive Materials

General

- All radioactive material must be disposed of as radioactive waste through EHS or transferred to another authorized user.
 - If the radioactive material is to be transferred to an approved user at WCU, ensure that the appropriate documentation is approved by the Radiation Safety Office prior to the transfer.
 - If the radioactive material is to be transferred to another licensee or returned to the manufacturer, make arrangements for the Radiation Safety Office (RSO) to pick up the material for shipment. Contact the RSO.
- Following removal/disposal of all radioactive material/waste, perform a swipe survey (and if appropriate, a radiation level survey for gamma emitters) of all former storage and use areas within the laboratories to be closed out.
 - All areas that measure $>100\text{dpm}/100\text{cm}^2$ must be decontaminated then re-swiped/surveyed to assure decontamination. Equipment that cannot be decontaminated must be disposed of as radioactive waste. Contact Radiation Safety Office for details and assistance.
- After the final swipe survey demonstrating all areas and equipment in the laboratory are $<100\text{dpm}/100\text{cm}^2$, schedule an official closeout survey with Radiation Safety. Radiation Safety personnel will complete a closeout survey, remove all radioactive material postings, and notify the PI that the laboratory has been released.
- If the PI fails to satisfactorily complete the above steps, the Department Chairperson will be responsible to ensure the prompt completion of the required closeout steps.

Radiation Producing Devices

The Radiation Safety Office is required to maintain an inventory of all radiation producing devices

- Each PI is responsible for notifying the Radiation Safety Office if there is any change which would render the registration inaccurate, including change of use location, sale, transfer or disposal of any radiation machine or major component thereof. Transfers are defined as follows:
 - *On Campus Transfers:* Since approval for the procurement and use of a radiation producing device was initially given for the original working area and proposed research under the supervision of the approved PI, devices shall not be transferred from one area to another or to another individual without approval of the Radiation Safety Office.

- *Off-Campus Transfers*: Radiation producing devices shall not be shipped or transferred to, or from any University facility, or outside organization without prior approval of the Radiation Safety Office.
- *Disposal of Radiation Producing Device*: Prior to the disposal of obsolete or irreparable equipment, the Radiation Safety Office must be notified in order to amend inventories

Laboratory Equipment

- All equipment must be in a condition that is clean and safe for handling.
- Equipment that is or may be contaminated with a chemical, biological, radioactive, or other hazardous material must be decontaminated before it is moved, disposed of/surveyed out of WCU's inventory, shipped offsite, or repaired.
 - This will include, but is not limited to fume hoods, refrigerators, freezers, centrifuges, biological safety cabinets, incubators, ovens, etc.
- Document this decontamination on an EHS Laboratory Equipment Decontamination Form ([See Appendix A](#)).
 - The signature of the person decontaminating the equipment is required
 - Email the signed form to EHS@wcupa.edu.
 - EHS will review the form to ensure the decontamination method used is appropriate
 - The completed form is then affixed to the equipment.
 - Proceed with repair, move, pick up, etc.

Note that Biosafety Cabinets (BSCs, biosafety "hoods") used with biohazards must be professionally decontaminated with gas/vapor before moving, surveying out/disposing of, or repair of contaminated plenums within the cabinet. Contact the vendor to decontaminate this equipment before submitting the EHS Equipment Decontamination Form to EHS.

Shared Areas

All shared space (labs, equipment rooms, storage areas, cold rooms, dark rooms, autoclave rooms, etc.) must be cleared of materials and cleaned by the departing staff. Otherwise, the Department Chair or another PI must assume responsibility for the space and its contents.

Reviewed: February, 2023

Appendix A

Laboratory Equipment Decontamination Form:

Directions: Designated laboratory representative should complete form (Check N/A box for areas that do not apply). When the form is completed, sign the bottom to certify applicable decontamination steps have been properly addressed, and attach checklist to the equipment.

This equipment is being decontaminated for	<input type="checkbox"/> Disposal	<input type="checkbox"/> Relocation	<input type="checkbox"/> Repair	<input type="checkbox"/> Storage
Type of Equipment/Model: _____	Serial #: _____			
Building: _____	Room: _____			
Dept./Div.: _____	Principal Investigator : _____			
Phone: _____				

- Biohazardous Material** used in the equipment N/A
 - Disinfected using: _____
 - Biohazard label removed
- Hazardous Chemicals** used in the equipment N/A
 - Removed, cleaned and/or neutralized with appropriate detergent (refer to MSDS, etc.)
 - Hazardous Waste label applied to chemical(s)
- Radioactive Material** used in the equipment N/A
 - Fully monitored for radioactive materials (inside and out), has been decontaminated, and is not radioactive
 - Radiation hazard label removed
 - EHS Radiation Protection Office has cleared the equipment:
Signature: _____ Name: _____ Date: _____

<p>I certify that, to the best of my knowledge, the equipment is free of hazardous materials or hazards, including those noted above.</p> <p>Signature: _____ Name: _____ Date: _____</p> <p>Comments: _____</p>

If internal components or surfaces may have been contaminated and cannot be cleaned by the equipment owner or service representative, consult with the Department of Environmental Health and Safety at 610-436-3333