

Laboratory Decommissioning/Commissioning

University of Tennessee Safety Procedure LS-003

Document Contact: EHS-Lab Safety

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Purpose

To detail the procedure for properly decommissioning a lab that may result from

- Change in ownership
- Change in location
- Loss of faculty member through retirement, loss of funding or death
- Lab renovation
- Lab expansion
- Other

Scope and Applicability

This shall apply to all research and teaching laboratories and academic shops on the Knoxville campus of the University of Tennessee.

This shall apply to all students, staff and faculty on the Knoxville campus of the University of Tennessee.

Abbreviations and Definitions

Abbreviations

BSL – Biological Safety Level

DEA – Drug Enforcement Administration

DOT – Department of Transportation (regulates transport of hazardous materials on our roadways)

DSO: Departmental Safety Officer

EHS – Environmental Health & Safety Department

IACUC – Institutional Animal Care and Use Committee

PI – Principal Investigator

STAR Team – Special Team to Assist Research (a division of Facilities Services)

Definitions

Lab Decommissioning: Lab is closing due to retirement, loss of funding, death, etc.

Lab Securing: Lab space and contents are changing ownership due to retirement, loss of funding, death, etc.

Lab Moving: Lab is being decommissioned due to relocating to another room, building, UT campus or other University or everything being removed for renovation



Lab Expansion: Lab is acquiring new space and keeping the original space

Facility Supervisor: The Director or Head of a Center, Department or Joint Institute

Hazardous Waste: Waste that is dangerous or potentially harmful to our health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes. This does not include biohazardous wastes or radioactive wastes.

Universal Waste: a category of waste materials designated as "hazardous waste", but containing materials that are very common. It is defined in 40 C.F.R. 273.9, by the United States Environmental Protection Agency but states may also have corollary regulations regarding these materials. This includes batteries, pesticides, mercury-containing equipment and bulbs (lamps).

Roles and Responsibilities

Department Head or Facility Supervisor or Departmental Safety Officer

- Shall assign a Responsible Person for each lab that is to be decommissioned, at least one month prior to lab decommissioning.
- Shall ensure all applicable sections (appendices A, B, and C) are completed and sign each form upon completion
- Shall keep the completed and signed original Lab Decommissioning Checklist for Lab Closeout or Lab Move on file in the department personnel files for a minimum of 10 years and shall send an electronic copy of the forms to Facilities Manager (if applicable), the Associate Dean's office, EHS and the Office of Research

Responsible Person

- Shall be a person with capable skill and knowledge to carry out the required tasks as determined by the Department Head/Facility Supervisor, in most cases the occupant or PI
- Shall ensure that all required elements of the Decommissioning Procedure are fulfilled and sign the Lab Decommissioning Checklist upon completion
- Shall ensure that all required signatures are obtained

EHS

- Shall coordinate with a licensed contractor to remove and properly dispose of Hazardous Waste in accordance with state and federal regulations – EHS needs a four week lead time to schedule contractor
- Shall coordinate with a licensed contractor to properly pack and move all hazardous chemicals in accordance with state and federal regulations in the event of a lab move – EHS needs a four week lead time to schedule contractor
- Shall provide Lab Door Placards (upon completion of Lab Door Placard form by lab personnel)
- Shall keep an electronic copy of the completed and signed Lab Decommissioning Form for a minimum of 10 years

Biosafety Office

- Shall coordinate with the PI or designate to ensure that biological hazards are either destroyed, transferred (either internal or external to the University), or safely stored in accordance with federal, state, local, and/or institutional standards.

- Shall perform an exit evaluation of the laboratory to verify that all affected working surfaces and equipment has been cleaned and surface disinfected as prescribed by the Biosafety Office.
- Shall coordinate decontamination of equipment prior to moving if indicated by risk assessment.
- Shall provide laboratory signage, labels, and other postings as appropriate.
- Shall ensure that Institutional Biosafety Committee approvals are updated or refiled as applicable

Rad Safety Office

- Shall remove or move any radioactive material
- Survey potentially contaminated equipment
- Shall perform exit survey

Facilities Services

- Shall manage utilities as needed
- Shall move non-sensitive equipment and non-fixed furniture

IACUC

- An IACUC inspection may be required when a lab which uses vertebrate animals is expanding or moving to a new space

Outside Vendors

- Shall pack, ship and dispose of hazardous waste in compliance with state and federal regulations.
- Shall pack, ship and unpack of hazardous materials to a new location in the event of a lab move, in compliance with state and federal regulations
- Shall remove and/or transport compressed gas cylinders in compliance with state and federal regulations
- Shall pack, move and set up sensitive equipment in the event of a lab move

Office of Research

- Review the lab closeout/move for any impact an existing grant or contract
- Shall keep an electronic copy of the completed and signed Lab Decommissioning Form for a minimum of 10 years

Procedures

General Procedures

- **Notify** EHS, Biosafety (if applicable), Rad Safety (if applicable) and Facilities Services at least four weeks prior to the lab closeout or move.
- **Use appropriate safety controls** and work practices for any cleanout activities. This includes wearing appropriate personal protective equipment (PPE) needed for the materials being handled (e.g. safety glasses, lab coat, gloves, closed-toed shoes, etc.).

Lab Closeouts

- **Complete** the Laboratory Decommissioning Checklist for Closeout (**Appendix A**).
- **Secure** all required signatures.
- **Post** a copy of the signature page in the sign holder on or next to the lab door.
- **File** the signed original in the corresponding academic department.

Lab Moves

- **Complete** the Laboratory Decommissioning Checklist for Lab Moves (**Appendix B**).
- **Secure** all required signatures.
- **Post** a copy of the signature page in the sign holder on or next to the lab door.
- **File** in the corresponding academic department.
- Lab moves will also complete the move-in process below

Lab Commissioning (Lab Move-In)

- **Complete** the Laboratory Commissioning Checklist for Lab Move-Ins (**Appendix C**).
- **Secure** all required signatures.
- **File** in the corresponding academic department.
- EHS will post your new door placard.

Recordkeeping

- A copy of the Laboratory Decommissioning Checklist signature page (Appendix A or Appendix B) shall be posted in the sign holder on or next to the laboratory door to be removed by new occupant and the signed original shall be filed in the corresponding academic department files for 10 years.
- The Laboratory Commissioning and Decommissioning Checklists shall be filed in the corresponding academic department files for 10 years.
- Copies of all documents should be kept by the Facilities Manager (if applicable), the Associate Dean's office, EHS and the Office of Research for a minimum of 10 years.

Training and Information Requirements

None

References

None

Appendices

Appendix A: Laboratory Decommissioning Checklist for Lab Closeout

Appendix B: Laboratory Decommissioning Checklist for Lab Move

Appendix C: Laboratory Commissioning Checklist

Appendix D: Lab Decommissioning Concept Map

Disclaimer

The information provided in these guidelines is designed for educational use only and is not a substitute for specific training or experience.

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Appendix A: Decommissioning Checklist for Lab Closing

This form is for lab closing only and is not for lab moves

General Information

Department: _____

Lab Location Building: _____ **Room(s):** _____

Responsible Person: _____ **Phone #:** _____

**Department Head,
Facility Supervisor,
or Department Safety Officer** _____ **Phone #:** _____

Estimated Date for Closing Lab: _____

Reason for Closeout: **Leaving UT** **Retirement** **Other**

Four Sections to Review



Biosafety



Radiation Safety



Chemical Safety



Other

Biosafety (Lab Closing)**What biosafety level applies?**

None (skip to next section) BSL-1 BSL-2 BSL-3



Responsible Person Responsibilities	Completed	N/A	Initials
Contact the Biosafety Office to evaluate biohazards to be moved or discarded.	<input type="checkbox"/>	<input type="checkbox"/>	
Biohazards have been removed from the lab: <ul style="list-style-type: none"> Biohazards sent to offsite locations must be packaged and shipped in accordance with DOT/IATA hazardous materials shipping regulations; contact the Biosafety Office for assistance. Biohazards transferred to other UT lab locations must be reviewed and approved by the Biosafety Office. Unwanted biohazard must be segregated and treated as biohazardous waste (see below). 	<input type="checkbox"/>	<input type="checkbox"/>	
All biohazardous waste must be inactivated by an approved method (e.g. autoclaving) or packaged for removal by regulated medical waste contractor; contact Biosafety Office for guidance.	<input type="checkbox"/>	<input type="checkbox"/>	
Permanently close and surface disinfect sharps containers and submit to EHS during hazardous waste collection. Contact EHS or the Biosafety Office for locations and times.			
Surface clean and disinfect all lab benches used for procedures with biohazards.	<input type="checkbox"/>	<input type="checkbox"/>	
Surface clean and disinfect all biosafety cabinets (BSCs), clean benches, centrifuges, incubators, or other equipment used to process and store biohazards. Full gaseous decontamination of internal components of such equipment is generally not required, but may be necessary depending on risk assessment. Equipment for surplus must be labeled with appropriate surplus/decontamination forms (see https://warehousing.utk.edu/).	<input type="checkbox"/>	<input type="checkbox"/>	
Remove or deface all biohazard labels/markings on decontaminated equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify the Biosafety Office of any equipment or areas that cannot be fully decontaminated.	<input type="checkbox"/>	<input type="checkbox"/>	

Biosafety Office Responsibilities	Completed	N/A	Initials
Perform exit survey.	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure that biohazards are properly packaged and declared for commercial shipping as applicable (in accordance with DOT/IATA regulations). Verify approvals if biohazards transferred to other UT labs as applicable.	<input type="checkbox"/>	<input type="checkbox"/>	
Verify that all biohazardous waste has been treated/removed from lab and that sharps containers have been submitted to EHS or the Biosafety Office.	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure that equipment has been cleaned and disinfected. Where equipment cannot be satisfactorily disinfected, the Biosafety Office will arrange for gaseous decontamination of equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
Verify that all biohazard labels have been removed/defaced and remove the door placard(s) as necessary.	<input type="checkbox"/>	<input type="checkbox"/>	

Radiation Safety (Lab Closing)



Were radioactive materials used in the lab?

No (skip to next section) **Yes (complete the following)**

<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Prepare radioactive waste for Radiation Safety to pick up. All waste containers should be labeled with radionuclide and activity.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Rad Safety for an exit decommissioning survey of the lab space.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify the Rad Safety Office if there are items/equipment that may be contaminated with radioactive materials.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>Radiation Safety Office Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Remove/move any radioactive materials.	<input type="checkbox"/>	<input type="checkbox"/>	
Survey all equipment that is labeled, or could possibly be contaminated.	<input type="checkbox"/>	<input type="checkbox"/>	
Perform an exit decommissioning survey of the lab space, and remove radiation postings from doors.	<input type="checkbox"/>	<input type="checkbox"/>	

Chemical Safety (Lab Closing)

Were chemicals used in the lab?

No (skip to next section) Yes (complete the following)



<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Label all chemical containers with the proper chemical name. Abbreviations, chemical formulas or structures are not acceptable.	<input type="checkbox"/>	<input type="checkbox"/>	
Close all containers securely	<input type="checkbox"/>	<input type="checkbox"/>	
Empty all beakers, flasks, evaporating dishes, oil/water bathes into the proper container and dispose of appropriately (all hazardous materials must be disposed of as hazardous waste).	<input type="checkbox"/>	<input type="checkbox"/>	
Dispose of empty containers in the trash after removing all markings and writing "EMPTY" on the container. Triple rinse empty acid containers before disposal. Empty containers which held acutely toxic chemicals should be disposed of through EHS. Do not dispose of any chemicals in the trash or down the drain, regardless of hazard rating	<input type="checkbox"/>	<input type="checkbox"/>	
Check containers for expiration dates and signs of corrosion crystallization. Peroxide-forming materials should be disposed of if the container has been opened and is more than six months old, or if it has not been opened and is more than one year old. Always dispose of by the expiration date listed by the supplier.	<input type="checkbox"/>	<input type="checkbox"/>	
Dispose of old chemicals and lecture bottles to EHS at one of the waste rooms or appropriate waste collections. If you have a large amount of chemicals to dispose of, contact EHS to coordinate a lab chemical cleanout at least four weeks before needed.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact DEA to dispose of any controlled substances	<input type="checkbox"/>	<input type="checkbox"/>	
Clean and decontaminate all chemical cabinets, refrigerators, freezers and any other chemical storage areas, benchtops and equipment from any spilled chemicals. Remove all bench paper.	<input type="checkbox"/>	<input type="checkbox"/>	
Make sure that shared equipment and locations are included in the cleanout and are decontaminated from any radioactive, biohazardous or chemical contamination.	<input type="checkbox"/>	<input type="checkbox"/>	
Remove regulators, replace cylinder caps and return all compressed gas cylinders to the vendor (Airgas).	<input type="checkbox"/>	<input type="checkbox"/>	
Contact EHS for disposal of any compressed gas cylinders which are non-returnable	<input type="checkbox"/>	<input type="checkbox"/>	
Properly dispose of all sharps waste (Bio, Rad or Chemical)	<input type="checkbox"/>	<input type="checkbox"/>	
Notify EHS of any materials or procedures that could leave hazardous chemical residues (e.g., perchloric acid in a chemical fume hood) or areas that cannot be fully decontaminated (e.g., materials potentially containing asbestos; fume hoods; refrigerators used in the storage of highly toxic chemicals, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	

<i>EHS Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Perform Exit Survey.	<input type="checkbox"/>	<input type="checkbox"/>	
Dispose of all chemicals, lecture bottles, and other hazardous materials left remaining in lab.	<input type="checkbox"/>	<input type="checkbox"/>	
Address any chemical residue hazards.	<input type="checkbox"/>	<input type="checkbox"/>	

All Other Safety (Lab Closing)

To be completed by all labs



<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Bag or box up all trash and refuse (or place in trash cans) and label as trash for disposal by housekeeping.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify Facilities Services to bleed any stored electrical energy from equipment (e.g., capacitors) bound for trash or surplus to the warehouse.	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure all keys unique to closing lab have been turned in by all members of the research group.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>STAR Team Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Equipment disconnected from fixed facilities and utility connections in room made safe.	<input type="checkbox"/>	<input type="checkbox"/>	
Bleed stored electrical energy from equipment.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>Department Head, Facility Supervisor, DSO</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Ensure the Responsible Person has completed the lab closeout to their satisfaction.	<input type="checkbox"/>	<input type="checkbox"/>	
Approve release of final paycheck pending required signatures.	<input type="checkbox"/>	<input type="checkbox"/>	

Required Signatures (Lab Closing)

This lab is considered clean and ready for housekeeping, renovations, or occupation by new faculty, only after all signatures are complete and this page is posted on the lab door.

Responsible Person:

Print	Signature	Date:
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Department Head, Facility Supervisor, or DSO:

Print	Signature	Date:
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EHS Representative:

Print	Signature	Date:
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Rad Safety Rep. (Rad Labs only):

Print	Signature	Date:
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Biosafety Rep. (BSL-2 Labs only):

Print	Signature	Date:
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STAR Team Representative:

Print	Signature	Date:
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Current (Interim) Emergency Contact

Name and Department	Daytime Phone #	After Hours phone #
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This record shall be kept in the PI's (or responsible person) permanent personnel file in their respective departmental office for a minimum of 10 years. Electronic copies shall be kept by the Office of Research and Environmental Health & Safety for a minimum of 10 years. A copy of the signature page shall be placed in the sign holder on or next to the laboratory door to be removed by the new occupant

Appendix B: Decommissioning Checklist for Lab Move

This form is for lab moves only from one UTK location to another UTK location

General Information

Department: _____

Lab Location Building: _____ **Room(s):** _____

Responsible Person (PI): _____ **Phone #:** _____

**Department Head,
Facility Supervisor,
or Department Safety Officer** _____ **Phone #:** _____

Scheduled Date of Move: _____

Four Sections to Review

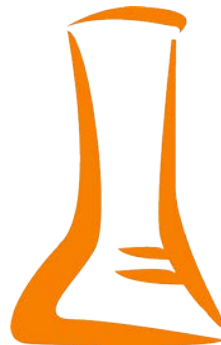
This checklist is provided to direct you in the requirements for a safe and efficient transfer of your hazardous chemicals, radioactive and biological materials, gas cylinders, and lab equipment to your new location.



Biosafety



Radiation Safety



Chemical Safety



Other

Biosafety (Lab Moving)**What biosafety level applies?**

None (skip to next section) BSL-1 BSL-2 BSL-3



Responsible Person Responsibilities	Completed	N/A	Initials
Contact the Biosafety Office to evaluate biohazards to be moved or discarded.	<input type="checkbox"/>	<input type="checkbox"/>	
Biohazards have been removed from the lab: <ul style="list-style-type: none"> Biohazards sent to offsite locations must be packaged and shipped in accordance with DOT/IATA hazardous materials shipping regulations; contact the Biosafety Office for assistance. Biohazards transferred to other UT lab locations must be reviewed and approved by the Biosafety Office. Unwanted biohazard must be segregated and treated as biohazardous waste (see below). 	<input type="checkbox"/>	<input type="checkbox"/>	
All biohazardous waste must be inactivated by an approved method (e.g. autoclaving) or packaged for removal by regulated medical waste contractor; contact Biosafety Office for guidance.	<input type="checkbox"/>	<input type="checkbox"/>	
Permanently close and surface disinfect sharps containers and submit to EHS during hazardous waste collection. Contact EHS or the Biosafety Office for locations and times.			
Surface clean and disinfect all lab benches used for procedures with biohazards.	<input type="checkbox"/>	<input type="checkbox"/>	
Surface clean and disinfect all biosafety cabinets (BSCs), clean benches, centrifuges, incubators, or other equipment used to process and store biohazards. Full gaseous decontamination of internal components of such equipment is generally not required, but may be necessary depending on risk assessment. Equipment for surplus must be labeled with appropriate surplus/decontamination forms (see https://warehousing.utk.edu/).	<input type="checkbox"/>	<input type="checkbox"/>	
Remove, deface, or cover all biohazard labels/markings on decontaminated equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify the Biosafety Office of any equipment or areas that cannot be fully decontaminated.	<input type="checkbox"/>	<input type="checkbox"/>	

Biosafety Office Responsibilities	Completed	N/A	Initials
Perform exit survey.	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure that biohazards are properly packaged and declared for commercial shipping as applicable (in accordance with DOT/IATA regulations). Verify approvals if biohazards transferred to other UT labs as applicable.	<input type="checkbox"/>	<input type="checkbox"/>	
Verify that all biohazardous waste has been treated/removed from lab and that sharps containers have been submitted to EHS or the Biosafety Office.	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure that equipment has been cleaned and disinfected. Where equipment cannot be satisfactorily disinfected, the Biosafety Office will arrange for gaseous decontamination of equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
Verify that all biohazard labels have been removed/defaced/covered and remove the door placard(s) as necessary.	<input type="checkbox"/>	<input type="checkbox"/>	

Radiation Safety (Lab Moving)

Were radioactive materials used in the lab?

No (skip to next section) Yes (complete the following)



<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Prepare radioactive waste for Radiation Safety to pick up. All waste containers should be labeled with radionuclide and activity.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Rad Safety for an exit decommissioning survey of the lab space and to coordinate the events involved with moving materials and equipment that have been used with radioactive materials.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify the Rad Safety Office if there are items/equipment that may be contaminated with radioactive materials.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Radiation Safety if any X-ray machine or device is to be moved in order to submit the necessary forms indicating the move and the new room location to the State of Tennessee within 10 days of the relocation (the University could potentially face monetary fines of \$30k).	<input type="checkbox"/>	<input type="checkbox"/>	

<i>Radiation Safety Office Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Remove/move any radioactive materials.	<input type="checkbox"/>	<input type="checkbox"/>	
Survey all equipment that is labeled, or could possibly be contaminated.	<input type="checkbox"/>	<input type="checkbox"/>	
Perform an exit decommissioning survey of the lab space, and remove radiation postings from doors.	<input type="checkbox"/>	<input type="checkbox"/>	
Assist with the packing and moving of any contaminated equipment that can't be cleaned.	<input type="checkbox"/>	<input type="checkbox"/>	

Chemical Safety (Lab Moving)

Were chemicals used in the lab?

No (skip to next section) Yes (complete the following)



<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Label all chemical containers with the proper chemical name. Abbreviations, chemical formulas, or structures are not acceptable.	<input type="checkbox"/>	<input type="checkbox"/>	
Close all containers securely	<input type="checkbox"/>	<input type="checkbox"/>	
Sort out unwanted chemicals prior to the move. Unopened and unexpired chemicals may be added to the Chemical Exchange Program. Contact EHS at 974-5084 for more information. Do not dispose of any chemicals in the trash or down the drain, regardless of hazard rating.	<input type="checkbox"/>	<input type="checkbox"/>	
Empty all beakers, flasks, evaporating dishes, oil/water baths into the proper container and dispose of appropriately (all hazardous materials must be disposed of as hazardous waste).	<input type="checkbox"/>	<input type="checkbox"/>	

Responsible Person Responsibilities	Completed	N/A	Initials
Dispose of empty containers in the trash after removing all markings and writing "EMPTY" on the container. Triple rinse empty acid containers before disposal. Empty containers which held acutely toxic chemicals should be disposed of through EHS. Do not dispose of any chemicals in the trash or down the drain, regardless of hazard rating	<input type="checkbox"/>	<input type="checkbox"/>	
Check containers for expiration dates and signs of corrosion crystallization. Peroxide-forming materials should be disposed of if the container has been opened and is more than six months old, or if it has not been opened and is more than one year old. Always dispose of by the expiration date listed by the supplier.	<input type="checkbox"/>	<input type="checkbox"/>	
Dispose of old chemicals and lecture bottles to EHS at one of the waste rooms or appropriate waste collections. If you have a large amount of chemicals to dispose of, contact EHS to coordinate a lab chemical cleanout at least four weeks before needed.	<input type="checkbox"/>	<input type="checkbox"/>	
Check containers and lids for damage and cracks. Replace any faulty caps or containers. Damaged containers cannot be transported. Do not move unknowns or leaky containers. Unknowns or leaky containers should be disposed of as hazardous waste (all containers must be spill-proof so please place any leaky containers in a secondary container).	<input type="checkbox"/>	<input type="checkbox"/>	
Contact DEA to dispose of any controlled substances	<input type="checkbox"/>	<input type="checkbox"/>	
Clean and decontaminate all chemical cabinets, refrigerators, freezers and any other chemical storage areas, benchtops and equipment from any spilled chemicals. Remove all bench paper.	<input type="checkbox"/>	<input type="checkbox"/>	
Make sure that shared equipment and locations are included in the cleanout and are decontaminated from any radioactive, biohazardous or chemical contamination.	<input type="checkbox"/>	<input type="checkbox"/>	
Remove regulators, replace cylinder caps and return all rented compressed gas cylinders and lecture bottles that are no longer needed to the vendor. Be sure the caps are on the cylinders. Do not attempt to move any compressed gas cylinders or lecture bottles in personal or UT owned vehicles. Contact EHS for assistance in moving lecture bottles and specialty gases.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact EHS for disposal of any compressed gas cylinders which are non-returnable	<input type="checkbox"/>	<input type="checkbox"/>	
Properly dispose of all sharps waste (Bio, Rad or Chemical)	<input type="checkbox"/>	<input type="checkbox"/>	
Thoroughly check all storage areas to ensure no chemicals are left behind. Abandoned and unknown chemical containers can be difficult, expensive and dangerous to dispose of properly.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify EHS of any materials or procedures that could leave hazardous chemical residues (e.g., perchloric acid in a chemical fume hood) or areas that cannot be fully decontaminated (e.g., materials potentially containing asbestos; fume hoods; refrigerators used in the storage of highly toxic chemicals, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	
Chemicals must be removed from freezers, refrigerators, cabinets, and other equipment prior to moving. Temperature sensitive items may be transported in coolers, or stored in other areas until they can be moved to the new location. Ensure refrigeration is available at new location before moving temperature sensitive chemicals/items.	<input type="checkbox"/>	<input type="checkbox"/>	

Responsible Person Responsibilities	Completed	N/A	Initials
If temperature-sensitive chemicals are moved, a lab representative should be present during packing and unpacking to ensure these items remain at the correct temperature.	<input type="checkbox"/>	<input type="checkbox"/>	
Include mercury thermometers and other mercury-containing devices or equipment with hazardous materials to be shipped rather than moving them yourself.	<input type="checkbox"/>	<input type="checkbox"/>	
Following the move, place unpacked chemicals in their designated locations (cabinets, etc.) within the laboratory.	<input type="checkbox"/>	<input type="checkbox"/>	
Update Chemical Inventory and Door Placard information with EHS as soon as possible	<input type="checkbox"/>	<input type="checkbox"/>	

EHS Responsibilities	Completed	N/A	Initials
Perform Exit Survey.	<input type="checkbox"/>	<input type="checkbox"/>	
Dispose of all chemicals, lecture bottles, and other hazardous materials left remaining in lab.	<input type="checkbox"/>	<input type="checkbox"/>	
Address any chemical residue hazards.	<input type="checkbox"/>	<input type="checkbox"/>	
Provide all of the materials required to pack the chemicals in accordance with DOT regulations through the hazardous waste contractor	<input type="checkbox"/>	<input type="checkbox"/>	
Package, transport, and unpack the chemicals, place chemicals on lab benches. (Off-site transportation of hazardous chemicals must only be done by DOT licensed hazardous material carriers.)	<input type="checkbox"/>	<input type="checkbox"/>	

All Other Safety (Lab Moving)

To be completed by all labs



Responsible Person Responsibilities	Completed	N/A	Initials
Ensure that material to be moved or discarded is not stored in hallways or otherwise blocking fire exits or other emergency equipment such as safety showers.	<input type="checkbox"/>	<input type="checkbox"/>	
Discard or have repaired damaged electrical equipment (e.g. with frayed wiring) prior to moving.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact surplus and fill out the surplus equipment decontamination form on any unwanted equipment from the lab that will not be included in the move. http://warehousing.utk.edu/	<input type="checkbox"/>	<input type="checkbox"/>	
Leave old batteries and fluorescent lamps in a safe location in the lab for disposal as Universal Waste by Facilities Services.	<input type="checkbox"/>	<input type="checkbox"/>	
Bag or box up all trash and refuse (or place in trash cans) and label as trash for disposal by housekeeping.	<input type="checkbox"/>	<input type="checkbox"/>	
Notify Facilities Services to bleed any stored electrical energy from equipment (e.g., capacitors) bound for trash or surplus to the warehouse.	<input type="checkbox"/>	<input type="checkbox"/>	
Ensure all keys unique to closing lab have been turned in by all members of the research group.	<input type="checkbox"/>	<input type="checkbox"/>	

Responsible Person Responsibilities	Completed	N/A	Initials
Notify EHS if you have any of the following items to move (not being moved by a contractor or the manufacturer) as these may need special attention.			
<ul style="list-style-type: none"> • Large Batteries, Power Supplies, (Acid concerns) • Autoclaves, Ovens, Furnaces, Gloves, Incubators, Fume Hoods, Lab Bench Tops, (Asbestos concerns) • Internal Cylinders, Ampules, Canisters, (Compressed Gases) • Manometers, Thermometers, Barometers, Silent Switches (Mercury concerns) • High Voltage Systems, Power Supplies, Microscope Immersion Oils, Capacitors, Transformers, Hydraulic Fluid (PCB concerns) • Degreasing Equipment (Solvents concerns) 	<input type="checkbox"/>	<input type="checkbox"/>	

STAR Team (Facilities Services) Responsibilities	Completed	N/A	Initials
Utilities	<input type="checkbox"/>	<input type="checkbox"/>	
Move equipment/furniture	<input type="checkbox"/>	<input type="checkbox"/>	
Equipment disconnected from fixed facilities and utility connections in room made safe.	<input type="checkbox"/>	<input type="checkbox"/>	
Bleed stored electrical energy from equipment.	<input type="checkbox"/>	<input type="checkbox"/>	

Department Head, Facility Supervisor, DSO	Completed	N/A	Initials
Ensure the Responsible Person has completed the lab closeout to their satisfaction.	<input type="checkbox"/>	<input type="checkbox"/>	
Approve release of final paycheck pending required signatures.	<input type="checkbox"/>	<input type="checkbox"/>	

Required Signatures (Lab Moving)

This lab is considered clean and ready for housekeeping, renovations, or occupation by new faculty, only after all signatures are complete and this page is posted on the lab door.

Responsible Person:

Print	Signature	Date:
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Department Head, Facility Supervisor, or DSO:

Print	Signature	Date:
-------	-----------	-------

EHS Representative:

Print	Signature	Date:
-------	-----------	-------

Rad Safety Rep. (Rad Labs only):

Print	Signature	Date:
-------	-----------	-------

Biosafety Rep. (BSL-2 Labs only):

Print	Signature	Date:
-------	-----------	-------

STAR Team Representative:

Print	Signature	Date:
-------	-----------	-------

Current (Interim) Emergency Contact

Name and Department	Daytime Phone #	After Hours phone #
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This record shall be kept in the PI's (or responsible person) permanent personnel file in their respective departmental office for a minimum of 10 years. Electronic copies shall be kept by the Office of Research and Environmental Health & Safety for a minimum of 10 years. A copy of the signature page shall be placed in the sign holder on or next to the laboratory door to be removed by the new occupant

Appendix C: Commissioning Checklist for Lab Opening

This form is for opening a new lab. This form may follow a Lab Move Form (Appendix B)

General Information

Department: _____

New Lab Location Building: _____ **Room(s):** _____

Responsible Person (PI): _____ **Phone #:** _____

**Department Head,
Facility Supervisor,
or Department Safety Officer** _____ **Phone #:** _____

Scheduled Date of Move into new lab: _____

Four Sections to Review

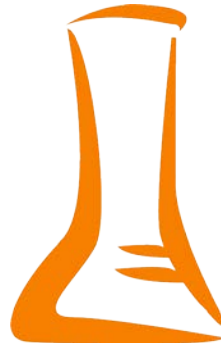
This checklist is provided to direct you in the requirements for a safe and efficient transfer of your hazardous chemicals, radioactive and biological materials, gas cylinders, and lab equipment to your new location.



Biosafety



Radiation Safety



Chemical Safety



Other

Biosafety (Lab Opening)**What biosafety level applies?**

None (skip to next section) **BSL-1** **BSL-2** **BSL-3**



Responsible Person Responsibilities	Completed	N/A	Initials
All BSCs used for manipulating infectious agents, primary human/animal tissues, plant pathogens under USDA restrictions, and/or biological toxins must be certified/recertified per NSF 49 standard prior to use. The Biosafety Office strongly recommends, but does not necessarily require, recertification of other HEPA-filtered equipment (e.g. BSCs used only for “sterile field” applications, laminar clean benches, etc.) to ensure that the motor function, filter housing, and filters have not been damaged during the move. The new location of equipment and recertification records should be provided to the Biosafety Office/IBC so that existing records can be updated accordingly.	<input type="checkbox"/>	<input type="checkbox"/>	
Register recombinant DNA, infectious agents, human-derived materials, acute biological toxins, or other biohazards with the Institutional Biosafety Committee. Preexisting registrations must be updated with new lab location and infrastructure details.	<input type="checkbox"/>	<input type="checkbox"/>	
Placard lab doors and label equipment used to process and/or store biohazards with a biohazard symbol.	<input type="checkbox"/>	<input type="checkbox"/>	
Biohazards are to be securely stored (e.g. lockable freezer or lab door), thoroughly labeled, and contained to prevent drips, leaks, spills, etc.	<input type="checkbox"/>	<input type="checkbox"/>	
All lab personnel must receive and document site-specific and programmatic biosafety training as required by the Biosafety Office.	<input type="checkbox"/>	<input type="checkbox"/>	
Establish a Biosafety Manual for labs designated Biosafety Level-2 or 3.	<input type="checkbox"/>	<input type="checkbox"/>	

Biosafety Office Responsibilities	Completed	N/A	Initials
Provide biosafety training, including new site-specific training templates.	<input type="checkbox"/>	<input type="checkbox"/>	
Provide biosafety door placards/signage and biohazard labels.	<input type="checkbox"/>	<input type="checkbox"/>	
Provide biosafety manual template or assist updating existing manual.	<input type="checkbox"/>	<input type="checkbox"/>	
Assist with IBC registration submissions or updates as applicable.	<input type="checkbox"/>	<input type="checkbox"/>	
Perform start-up survey to verify that all equipment is in place, BSCs are certified, biohazard labels are applied, and door(s) placarded.	<input type="checkbox"/>	<input type="checkbox"/>	

Radiation Safety (Lab Opening)

Were radioactive materials used in the lab?

No (skip to next section) Yes (complete the following)



<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Notify Radiation Safety of the new room location for any laser equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Radiation Safety to walk through new lab area to establish storage areas for radioactive materials, security, rad fume hood testing, postings and labeling.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>Radiation Safety Office Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Provide Radiation Safety training	<input type="checkbox"/>	<input type="checkbox"/>	
Issue dosimeters where required	<input type="checkbox"/>	<input type="checkbox"/>	

Chemical Safety (Lab Opening)

Were chemicals used in the lab?

No (skip to next section) Yes (complete the following)



<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Only order chemicals you need.	<input type="checkbox"/>	<input type="checkbox"/>	
Store your chemicals using a good compatibility plan.	<input type="checkbox"/>	<input type="checkbox"/>	
Keep a chemical inventory of what you have in stock and update inventory once move in is completed (add all new chemicals, compressed gas cylinders and cryogenics), turn in to EHS at ehs_labsafety@utk.edu .	<input type="checkbox"/>	<input type="checkbox"/>	
Develop/update the Chemical Hygiene Plan for the new location. Visit the Lab Safety Section of the EHS website for assistance. https://ehs.utk.edu/	<input type="checkbox"/>	<input type="checkbox"/>	
Establish a chemical spill kit appropriate for the materials to be used in the lab.	<input type="checkbox"/>	<input type="checkbox"/>	
Properly secure all compressed gas cylinders.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>EHS Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Provide orientation information and documents in support of new chemical activities.	<input type="checkbox"/>	<input type="checkbox"/>	

All Other Safety (Lab Opening)**To be completed by all labs**

<i>Responsible Person Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Complete a new lab door placard and submit it to EHS	<input type="checkbox"/>	<input type="checkbox"/>	
Contact EHS to test emergency equipment, evaluate any additional needs, and provide needed information and assistance.	<input type="checkbox"/>	<input type="checkbox"/>	
Complete or request General Lab Safety Training (including Hazardous Waste training as necessary) with EHS	<input type="checkbox"/>	<input type="checkbox"/>	
Provide lab specific training (by the PI or lab manager) that is current and documented for everyone working in the new laboratory.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>EHS Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Print and install new door placards	<input type="checkbox"/>	<input type="checkbox"/>	
Inspect fire extinguishers	<input type="checkbox"/>	<input type="checkbox"/>	
Inspect eyewashes	<input type="checkbox"/>	<input type="checkbox"/>	
Test face velocity of fume hood(s)	<input type="checkbox"/>	<input type="checkbox"/>	
Provide General Lab Safety Training, Hazardous Waste Training, and other training as requested.	<input type="checkbox"/>	<input type="checkbox"/>	

<i>STAR Team (Facilities Services) Responsibilities</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Test safety showers	<input type="checkbox"/>	<input type="checkbox"/>	

<i>Department Head, Facility Supervisor, DSO</i>	<i>Completed</i>	<i>N/A</i>	<i>Initials</i>
Research lab personnel should be introduced to (or informed of the identity of) the DSO and informed of their shared roles in ensuring a safe lab environment. All lab members should know who their DSO is and how they can request further assistance.	<input type="checkbox"/>	<input type="checkbox"/>	

Required Signatures (Lab Opening)

Responsible Person:

_____	_____	_____
Print	Signature	Date:

Department Head, Facility Supervisor, or DSO:

_____	_____	_____
Print	Signature	Date:

EHS Representative:

_____	_____	_____
Print	Signature	Date:

Rad Safety Rep. (Rad Labs only):

_____	_____	_____
Print	Signature	Date:

Biosafety Rep. (BSL-2 Labs only):

_____	_____	_____
Print	Signature	Date:

STAR Team Representative:

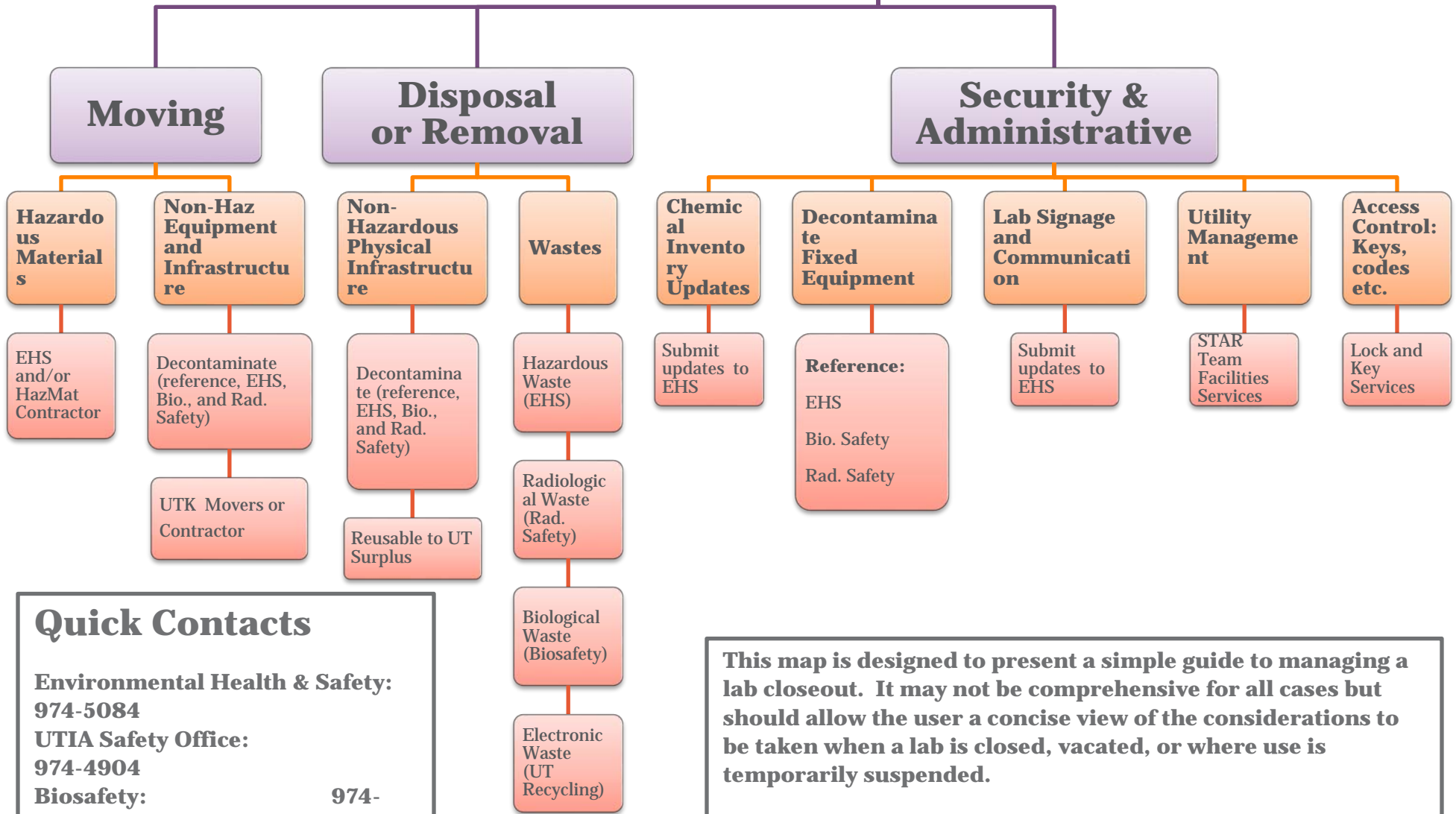
_____	_____	_____
Print	Signature	Date:

This record shall be kept in the PI's (or responsible person) permanent personnel file in their respective departmental office for a minimum of 10 years. Electronic copies shall be kept by the Office of Research and Environmental Health & Safety for a minimum of 10 years.



DEPARTMENT OF ENVIRONMENTAL HEALTH & SAFETY

Appendix D: Lab Closeout Procedures Map



Quick Contacts

Environmental Health & Safety:
974-5084

UTIA Safety Office:
974-4904

Biosafety: 974-5547

Radiation Safety: 974-5580

This map is designed to present a simple guide to managing a lab closeout. It may not be comprehensive for all cases but should allow the user a concise view of the considerations to be taken when a lab is closed, vacated, or where use is temporarily suspended.

Multiple organizations such as Environmental Health & Safety, Biosafety, Radiation Safety, the UTIA Safety Office, and the STAR team with Facilities Services can assist to ensure a