



UNIVERSITY OF SOUTH FLORIDA

Laboratory, Art Studio, and Shop Cleanout/Closeout/Relocation Procedures

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Revised: December 6, 2021

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Introduction

Hazardous materials such as chemicals, microorganisms, blood/blood products, body fluids, tissues, sources of radiation, and associated waste streams pose a risk of injury, illness, and/or environmental contamination when handled improperly. Additionally, the management, transportation, and disposal of hazardous materials/wastes must be conducted in compliance with applicable local, state, and federal regulations to avoid unnecessary violations or associated fines.

Purpose

In accordance with USF Policies [6-006](#) and [6-016](#), the purpose of these Laboratory, Art Studio, and Shop (LASS) Cleanout/Closeout/Relocation Procedures is to establish the responsibilities and general requirements associated with the safe and compliant cleanout, closeout, or relocation of a LASS at USF.

Definitions

1. **LASS** - acronym for Laboratory, Art Studio, and Shop
2. **Cleanout** - the removal of an excess amount of unwanted, unused, abandoned, or expired chemicals from a LASS. A cleanout may need to be completed during a closeout or relocation.
3. **Closeout** - the termination of LASS operations at USF.
4. **Relocation** - the transfer of LASS operations from one location at USF to another location at USF.

Cleanout Procedure

A chemical cleanout is completed to dispose of expired, excess, or unwanted chemicals. Please see the checklist in [Appendix 1](#). A chemical cleanout may occur as part of a closeout or relocation or may be completed independently. Routine hazardous waste pick-ups (fewer than 20 chemicals) are requested through CHEMATIX (see: [CHEMATIX User Training](#)).

The Lab Cleanout Procedure must be completed when a large number of chemicals (greater than 20) need to be removed from a LASS. A [Lab Cleanout Form](#) should be submitted at least three (3) weeks prior to the desired completion date. Environmental Health & Safety (EH&S) will schedule an appointment for the lab cleanout within three (3) working days after a request is submitted. Please allow 2-3 weeks for EH&S to effectively prepare for and complete the laboratory cleanout. Time for completion may vary depending on the size of the cleanout or the nature of the chemicals.

Redistribution of Chemicals

To minimize wastes and their associated costs, the redistribution of useable chemicals to other USF laboratories/areas should be attempted prior to disposal. EH&S must be notified whenever chemicals are transferred to another LASS in order to update inventories and determine compliance with applicable regulations, policies, and procedures. Upon request, EH&S will help coordinate the physical redistribution of chemicals.

Closeout Procedure

These procedures apply when a LASS terminates operations at USF. Prior to terminating LASS operations, the PI, or responsible person, will notify EH&S of the intent terminate LASS operations at least thirty (30) days prior, using the [Laboratory Registration Form](#). Notify Research, Integrity, and Compliance (RIC) and Comparative Medicine of the impending closure as applicable. Please refer to the detailed checklist in [Appendix 2](#). If greater than twenty (20) chemicals must be removed from the space, please refer to the cleanout procedures outlined in the [Cleanout Procedure](#) above.

Relocation

A LASS relocation refers to the move of operations from one location at USF to another location at USF. To decommission the original space, please refer to [Closeout Procedure, Appendix 1](#) and [Appendix 2](#). Notify EH&S, RIC, and Comparative Medicine of the move, as applicable. If the new space must be modified or equipment must be installed, follow the [USF Space Impact Process](#). Refer to the [New Lab Checklist](#) as applicable to assist with set up.

Responsibilities

EH&S, RIC, and/or Comparative Medicine are responsible for the following areas related to LASS cleanouts, closures, or relocations:

EH&S	RIC	Comparative Medicine
<ul style="list-style-type: none">• Hazardous Chemicals• Hazardous Wastes/Materials• Biomedical Waste	<ul style="list-style-type: none">• Biological Materials• Radioactive Materials• Radioactive Waste	<ul style="list-style-type: none">• Controlled Substances

These entities are generally responsible for:

- Coordinating services to transport, transfer/redistribute, store, and dispose of hazardous materials/wastes and other regulated materials.
- Providing ongoing assistance toward completion of safe and compliant cleanouts, closures, or relocations.
- Ensuring accurate documentation for proper transportation and/or disposal according to

applicable local, state, and federal regulations.

- Conducting post closure/relocation inspections of spaces for compliance with regulatory requirements as well as suitability for re-occupancy.

Colleges/Departments are responsible for:

- Notifying EH&S, RIC, and/or Comparative Medicine, as applicable, immediately to coordinate disposal services. Costs for services associated with the removal of hazardous materials/wastes, or any regulatory actions or fines resulting from improper management or disposal of hazardous materials due to an individual leaving the University without completing the laboratory cleanout/closeout process, as described, will be accrued by the responsible Department/College.
- Ensuring that decontamination of surfaces and equipment is completed, as applicable (see [Appendix 2](#)).
- Notifying EH&S, RIC, and/or Comparative Medicine 30 days prior to lab construction and renovation projects that may warrant the need for the removal of hazardous materials.
- Coordinating with EH&S and affected PI/supervisor to conduct a post-closeout inspection of the space to determine compliance with applicable procedures and suitability for re-occupancy.

Principal investigators, graduate students, post-doctoral appointees, and all others conducting research are responsible for:

- Notifying College/Department of planned departure or move at least sixty (60) days prior to moving to ensure that hazardous materials can be properly identified for disposal or transfer/redistribution.
- Ensuring that all hazardous materials are labeled, stored, and packaged for disposal as specified in [Appendix 1](#).
- Coordinating the proper disposal or redistribution of chemicals. Contact [EH&S](#) for guidance. Please refer to the Chemical Cleanout Checklist ([Appendix 1](#)).
- Coordinating the proper disposal of sources of radiation (e.g. radioactive sources, X-ray devices, radio analytical instruments, tissues containing radioactive materials). Contact [RIC](#) regarding regulatory requirements for proper disposal.
- Coordinating the proper disposal, transport and storage of select agents, biological toxins, and recombinant DNA. Contact [RIC](#) for further guidance.
- Coordinating the proper disposal or transport of DEA controlled substances. Contact [Comparative Medicine](#) for further guidance.
- Completing all other necessary procedures to decommission the LASS so that it is safe and hygienic for subsequent use ([Appendix 2](#)).
- Coordinating with EH&S and applicable College/Department to complete a post-closeout inspection subsequent to completion of decommissioning activities.

Non-Compliance/Consequences

The proper management of hazardous materials and wastes during a LASS cleanout, closeout or relocation is essential to maintaining a safe environment. Colleges/Departments involved in a LASS cleanout, closeout or relocation are responsible for reading and complying with these procedures.

Proper disposal of all hazardous materials used in a LASS is primarily the responsibility of the principal investigator, researcher, instructor, or other responsible party to whom a LASS is assigned. Ultimate responsibility for hazardous materials management lies with each department. Proper disposal of hazardous materials is required whenever a responsible individual leaves the University or transfers to a different LASS. ("Responsible individual" can include faculty, staff, post-doctoral and graduate students).

If failing to follow these procedures during closeout or transfer results in improper management of hazardous materials and requires removal services by EH&S or an outside contractor, the responsible department will be charged for those services. Any regulatory action or fines resulting from improper management or disposal of hazardous materials due to failing to follow these procedures will accrue to the responsible department.

Appendix 1: Chemical Cleanout Checklist

- Please make sure all items on this checklist are completed prior to chemical removal.
- All containers must be closed and in good condition or over packed inside containers that are in good condition.
- Chemicals must be labeled (if not known label as “unknown”).
- Chemicals must be removed from the chemical inventory.
- Place chemicals in the satellite accumulation area. Be aware that time sensitive chemicals, such as ethers, should not be moved or handled if they are expired or not in good condition due to their unstable characteristics.
- Keep incompatible chemicals segregated from each other.
- Complete and submit the [Lab Cleanout Form](#) three (3) weeks prior to the desired completion date or submit a pickup request using CHEMATIX if fewer than 20 chemicals.

Appendix 2: Laboratory Closeout Checklist^{1,2}

This checklist is designed to guide laboratory personnel safely through decommissioning procedures in the event that laboratory operations are moved or discontinued. In addition to the items in the checklist, please also consider the following:

- To assure others that appropriate cleaning and decontamination have been done, prepare a Laboratory Space & Equipment Clearance Statement ([Appendix 4](#)) or other clearance statement to attach to decontaminated equipment, furniture, and space.
- Use appropriate personal protective equipment (PPE) when cleaning, during decontamination, when handling hazardous materials, and when handling waste.
- See Chapters 5 and 8 of [Prudent Practices](#) for detailed storage, transport, and closeout procedures.
- Ensure that hazardous materials and their locations remain secure. Movers must be trustworthy and reliable as well as follow all applicable state and federal regulations associated with the handling, moving, and transporting of hazardous materials. Do not leave hazardous materials unattended or unsecured in hallways, loading areas, or vehicles.
- Be sure to clean and decontaminate areas outside the lab such as cold rooms, hallway freezers, and common storage areas. If these areas will no longer be used, remove all materials, including chemicals and biologicals.

Procedure	Initial with Date Completed or N/A
Gas Cylinders	
Remove regulators and manifolds. Cap all cylinders and bottles.	
Return cylinders to stockroom or supplier.	
Contact EH&S officer or waste vendor to pick up of non-returnable bottles.	
Controlled Substances	
Contact Comparative Medicine for moving or disposal instructions.	
Contact DEA to close or change location of the Controlled Substances Permit.	
If controlled substances are to be moved, establish procedures to ensure secure transport.	
Other Chemicals (including samples)	
Label all containers.	
Evaluate and sort chemicals into categories: move, redistribute to others, research materials to preserve, unknowns, and waste.	
Contact EH&S for guidance on proper packaging and shipping of chemicals.	

¹ Adapted From [Prudent Practices in the Laboratory](#).

² For more information, see Laboratory Decommissioning Standard, ANSI Z9.11 (2008), American National Standards Institute.

Redistribute usable chemicals to other laboratories. Notify EH&S of new location or for assistance coordinating the redistribution.	
Follow organizational procedures for proprietary samples and research materials to preserve.	
Review and investigate unknown materials for clues as to their identity. If not identifiable, contact EH&S for hazard categorization services.	
Contact EH&S for removal of chemical waste by submitting a Lab Cleanout Form or a CHEMATIX request.	
Update chemical inventory records to reflect the disposal or new locations of laboratory chemicals. Contact EH&S for assistance.	
Clean and decontaminate benchtops, furniture, other surfaces, laboratory hoods, storage cabinets, and other fixed equipment. Remove warning stickers. Attach EH&S Clearance Statements to equipment, spaces, etc.	
If mercury may have been spilled in the laboratory's history, coordinate with EH&S to verify decontamination with a portable atomic absorption spectrometer with a mercury vapor sensitivity of 2 ng/m ³ .	
Last step: Inspect all lab spaces to verify the removal of all chemicals. Be sure to check all drawers, cabinets, cupboards, refrigerators, etc.	
Microorganisms, Cultures, and rDNA	
See RIC Biosafety Closeout Procedures (summarized below).	
Biological specimens (cell lines, human, mouse tissues, infectious agents) relocated from USF may require a Material Transfer Agreement (MTAs). For the specifics relating to MTAs please contact Patents and Licensing rsch-agreements@usf.edu or edautovic@usf.edu .	
Biohazardous materials (adenoviral vectors, plasmids, cell lines, etc.) can be transferred in double containment to a new laboratory on campus.	
Label all containers.	
Evaluate and sort biologicals into categories: move, research materials to preserve, and waste.	
If moving biological materials in liquid nitrogen Dewar flasks, contact RIC officer to move using dry nitrogen shipper.	
Contact RIC office for guidance on proper packaging and shipping of other biologicals. Only personnel that are trained to ship hazardous materials can package and ship these items. RIC provides shipping training at no cost for employees of USF and its affiliates (Moffitt, VA, ACH, etc.). You can register for this course on the registration page .	
Follow organizational procedures for preservation of proprietary samples and research materials.	
Submit a modification request for paper IBC protocols to update lab location, or contact biosafety@usf.edu to close protocols.	
Decontaminate all liquid biohazard waste by adding bleach to a final concentration of 10% and allowing it to sit ample time prior to disposal down the drain followed by copious amounts of water.	

Dispose of treated biological waste according to organizational procedures. If you have a large amount of biological material to dispose of, contact EH&S to request extra biohazard waste bins.	
Contact EH&S or RIC for removal of other biological material and waste.	
Update biological inventory records for disposal and new locations.	
For registered recombinant DNA work, protocol must be closed or updated for new location prior to move.	
Clean and disinfect benchtops, furniture, other surfaces, biological safety cabinets, gloveboxes, storage cabinets, and other fixed equipment with freshly made 10% bleach or another EPA listed tuberculocidal disinfectant. Remove warning stickers.	
Decontaminate BSC(s). A vendor such as MedRep is recommended for this service.	
Complete the "Decontamination of Equipment Prior to Relocation and/or Lab Closeout" form. Once the form is completed, send to the biosafety office (biosafety@usf.edu), who will sign the form indicating that they have been notified of the lab decontamination and return to you to post on decontaminated equipment and in vacated lab space(s).	
Animal and Human Tissue	
Dispose of research animal carcasses and tissue per organizational procedures.	
Contact EH&S to remove waste with chemical preservatives.	
Transfer responsibility for samples as needed.	
Radioactive Materials	
Label all containers.	
Evaluate and sort radioactive materials for moving or disposal.	
To move radioactive materials, contact RIC office for guidance on packaging procedures and arranging shipment.	
Contact RIC office or waste vendor to remove radioactive waste.	
Update radioactive material inventory records for disposal and new locations.	
Clean, decontaminate, survey, and wipe-test benchtops, furniture, other surfaces, laboratory hoods, storage cabinets, and other fixed equipment. Remove warning stickers. Attach clearance statements to equipment and spaces.	
Clean, decontaminate, survey, and wipe-test refrigerators, freezers, and other movable equipment. Remove warning stickers and attach a clearance statement.	
Survey and wipe-test lead bricks, lead pigs, shielding, and source containers to verify decontamination. Follow organizational procedures for reuse, redistribution, recycling, or disposal.	
If moving materials, ensure that the new location has been approved by RIC office before proceeding.	

Last step: Conduct exit survey of rooms and equipment. Be sure to check all drawers, cabinets, etc. Submit survey results to RIC.	
Sharps	
Sharps include needles, syringes with or without needles, Pasteur pipettes, pipette tips, and contaminated broken glass.	
Keep separate sharps that are radioactive, biologically contaminated, and chemically contaminated. Contact EH&S or RIC for removal.	
Moveable Laboratory Equipment	
Decontaminate movable lab equipment that is to be left in place, moved, sold as surplus, or disposed of.	
Units that may contain refrigerants must be evaluated by Facilities Management to determine if refrigerant needs to be removed. If so, arrange for removal.	
For refrigerators, freezers, and other movable equipment that may be contaminated with chemicals, clean, decontaminate, remove warning stickers, and attach an EH&S Clearance Statement .	
For incubators that may be contaminated with biological materials, disconnect CO ₂ gas feed line, drain water jacket, clean, disinfect, remove warning stickers, and attach a clearance statement.	
For refrigerators, freezers, ultracentrifuges, UV boxes, transilluminators, imaging stations, and other movable equipment that may be contaminated with biological materials, clean, disinfect, remove warning stickers, and attach a clearance statement.	
To move fragile or vibration-sensitive equipment (e.g., balances, confocal microscopes) contact specialized movers.	
For refrigerators and freezers where carcasses and tissues were stored, clean, disinfect if necessary, remove warning stickers, and attach a clearance statement.	
For high-pressure liquid chromatographs, disconnect chemical feed and waste lines. If radioactive materials were used, decontaminate and wipe-test. Clean, remove warning stickers, and attach an EH&S Clearance Statement .	
Clean and decontaminate liquid scintillation/gamma counters. Contact RIC office to move or ship any external standards. Contact manufacturer to move units.	
For refrigerators, freezers, and other movable equipment that may be contaminated with radioactive materials, clean, decontaminate, survey, wipe-test, remove warning stickers, and attach a clearance statement.	
Prior to sale as surplus laboratory equipment, contact EH&S officer to determine if export controls apply.	
Request removal of lab equipment to be discarded.	

Empty Containers and Glassware	
For empty containers that held an EPA-regulated acutely hazardous waste, known as P-listed waste, request pickup as hazardous waste.	
For other empty containers, use practices commonly employed to empty the container (e.g., pouring, draining). If necessary, rinse with an appropriate solvent. Be sure that no more than 3% by weight of the container remains. Deface the label and place in trash.	
Clean glassware if necessary. Redistribute usable glassware to stockrooms and other laboratories.	
Reuse, Redistribute, and Recycle	
Contact Department to redistribute usable laboratory supplies to other laboratories.	
Contact Facilities Management to remove recyclable glass, plastic, or metal	
Contact Facilities Management to remove universal waste (batteries, fluorescent lamps)	
Return reusable lab coats to laundry.	
Other	
Dispose of used gloves, aprons, goggles, etc. according to organizational procedures.	
Pack all files, documentation, books, and publications. Follow organizational procedures for archiving research notebooks and supporting documentation.	
Destroy confidential papers.	
Update emergency information, including external door posting, contact lists, plans, etc.	
Contact Department to remove laboratory access.	

Appendix 3: Resources and Contacts

Contact	Area of Expertise	Telephone	Website
Environmental Health & Safety (EH&S)	Chemicals, biomedical waste, and general safety	813-974-4036	www.usf.edu/ehs
Division of Research Integrity and Compliance (RIC)	Biological and radiological materials Lasers X-Ray equipment	813-974-5638	https://www.usf.edu/research-innovation/research-integrity-compliance/ric-programs/index.aspx
Comparative Medicine	DEA controlled substances	813-974-9796	http://www.research.usf.edu/cm/subpages/dea-controlled-substances.asp
Business and Finance	Request relief from property	813-974-2393	https://www.usf.edu/business-finance/resource-management-analysis/
Facilities Management	Metal recycling, Universal waste	813-974-2845	http://www.usf.edu/administrative-services/facilities/index.aspx

Appendix 4: EH&S Laboratory Space & Equipment Clearance Statement*

Principal Investigator:	Phone/Email:
Department:	
Description of Space/Equipment: (i.e., Model, Serial #, USF Barcode, etc.)	
Building and Room Number Removed From:	Building and Room Number Transferred To:

Prior to vacating a laboratory or offering scientific equipment for disposal, transfer, maintenance, or surplus, this Laboratory Space & Equipment Clearance Statement must be completed and submitted to EH&S. When preparing the space/equipment for release, the following items must be completed:

1. Remove all hazardous chemicals (transfer ownership or properly dispose) from the space. Complete a [Lab Cleanout Form](#) if disposing more than 20 chemical items.
2. Decontaminate all potentially contaminated, accessible surfaces and request waste disposal from EH&S.
3. Notify EH&S if equipment contains any of the following: Pump oil, refrigerants, asbestos, fluorescent tubes or other mercury containing lamps, batteries (excluding alkaline), mercury (including switches), lead, or any other hazardous materials.
4. Complete this Laboratory Space & Equipment Clearance Statement and submit to EH&S. If you need assistance or have any questions please contact EH&S at 813-974-4036.
5. Post copies of the Laboratory Space & Equipment Clearance Statement in spaces and on equipment that have been cleaned and/or decontaminated.

Clearance Statement:

With the exception of hazardous materials which are inherent in the construction of this equipment (e.g., items listed in number 3 above), I certify the following:

- All hazardous chemicals used or stored in this equipment have been removed, and
- All surfaces potentially contaminated with hazardous chemicals have been decontaminated.

Chemical agent(s) were decontaminated by the following method:

Other known or suspected hazards not removed:

Signature: _____ Date: _____

* Note: This form does not cover biological or radioactive materials. Contact RIC at (813) 974-5638 for clearance requirements for those materials.