Laboratory Decommissioning Procedures Checklist

This checklist must be used whenever a SLU laboratory will be vacated for any reason. This includes renovations, relocation on campus, relocation to another institution, or halting of research activities. It is essential that labs must be left in a safe state suitable for new occupants or renovation. The vacating Principal Investigator (PI) and their designee should work with their department to coordinate the disinfection or sterilization of equipment, hoods and lab benches, movement of equipment from the lab for repair or relocation. The PI and their designee are responsible for the proper disposal of a biological, chemical or radioactive waste in accordance with SLU Environmental Health and Safety procedures, consistent with applicable EPA, MoDNR, OSHA, CDC, NIH, NRC, DOT and other regulations, prior to vacating the lab, including hazardous materials stored in shared use or storage space, such as a cold room, freezer, or stockroom.

Department Chairs and PIs or their designees should notify EHS (ehs@slu.edu) of the intended laboratory vacancy as soon as they become aware that a vacancy is planned, at least 1 month in advance, and 4 months in advance if leaving the University. If the PI leaves suddenly, the PI's department should appoint a designee for the lab cleanout, who will coordinate and notify EHS in the absence of the PI. EHS will provide guidance and assistance to ensure that the space will be left in a safe and clean condition. PIs and/or their designees should utilize this Laboratory Decommissioning Checklist prior to vacating a laboratory.

	The PI (and designee) is Responsible for the Following: ***Always: Notify ehs@slu.edu then follow this checklist.***	**Date Completed & Initials**
	CHEMICALS AND CHEMICAL WASTE	
1.	**Inspect and Inventory All Chemicals.** • Ensure that all chemicals are clearly labeled, as to the contents and hazards associated with that chemical. • Check chemicals for expiration dates, signs of corrosion or crystallization. • Ensure that the outside of all chemical containers are clean and free of any hazardous materials or leakage. • Make every effort to identify any unknown substance. Hazard characterization and disposal of unknowns is expensive. Additional cost and charges due to inappropriate storage and handling will be billed to the PI or department.	
2.	**Determine which chemicals will be moved to a new location, if any.** • Separate any chemical(s) desired to be taken to the new lab. • *EHS can advise on the transporting of these chemicals, though the ultimate responsibility for the legal transporting and/or shipping of any hazardous material resides with the PI or designee.* • Hazardous chemicals transported off-campus must comply with applicable U.S. Department of Transportation (DOT) regulations.	
3.	**Usable chemicals, which will not be transferred to a new location, may be donated to other researchers, instead of being disposed of.** • Any unopened or usable chemical, which is not expired or unstable, may be redistributed to other laboratories. • Transfer of chemicals should be coordinated by the PI or designee and should be noted in each laboratory's chemical inventory.	
4.	**All hazardous chemicals that are not slated for transfer or redistribution must be properly disposed of as hazardous waste through EHS chemical waste disposal request.**	

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	• No hazardous chemicals shall be discarded in the trash, poured down the sink or drain, or evaporated. • Designate an area for storage of unwanted chemicals and segregate the chemicals according to hazards. • Compile an accurate inventory list. • Properly label all chemicals with the appropriate markings that include "Hazardous Waste", and name of the chemicals. Email: chemwaste@slu.edu to coordinate a plan for chemical waste disposal and pickup. • Hazardous waste cannot be transferred to a new laboratory.	
5.	**Any unwanted buffers and commonly known non-hazardous chemical solutions may be drain disposed. Refer to the Safety Data Sheet or EHS if there are any questions about the hazardous nature of any chemical waste.**	
6.	**Carefully inspect shared storage areas, such as refrigerators, freezers, and cold rooms.** • All samples, reagents, chemicals, and other hazardous materials left by current or past staff or students must be identified and properly disposed of or transferred to a new laboratory.	
7.	**Decontaminate Equipment and Surfaces:** Wipe down contaminated equipment and surfaces with a solvent or cleaning agent capable of removing the contaminant.	
8.	**Compressed Gas Cylinders should be returned to Airgas or returned to appropriate vendor.** • The regulator shall be removed, and valve stem cap replaced prior to moving the cylinder. • A gas cylinder cart must be used during the transportation of cylinders. • All lecture size cylinders shall be returned to the manufacturer. • Contact EHS for assistance in return or disposing of small gas cylinders. • Empty gas cylinders are still considered as being hazardous materials and cannot be discarded in the trash.	
9.	**Controlled Substances*** • For PI's who possess an individual DEA* and/or BNDD* license for controlled substances, the PI's must contact the appropriate agency for guidance on the license or registration going forward. • The DEA/BNDD must be notified of destruction, termination, or transfer of the license as appropropriate. • After receiving guidance from the appropriate agency, contact chemwaste@slu.edu for assistance with disposal. EHS will help coordinate disposal; however, the PI is responsible for the process and any costs associated with disposal. • For PI's with controlled substances provided by SLU Comparative Medicine, return the materials to Comparative Medicine prior to leaving SLU. *DEA = Drug Enforcement Agency BNDD = Bureau of Narcotics and Dangerous Drugs (under Missouri Department of Health & Senior Services)	
10.	**The SLU Chemical Hygiene Plan is linked below. This plan contains the University's Chemical Waste Disposal Program.** Link: https://www.slu.edu/research/faculty-resources/docs/chemical_hygiene_plan.pdf	

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BIOLOGICAL MATERIALS AND BIOHAZARD WASTE		
1.	**Contact the Biological Safety Officer as soon as a laboratory move is known.** • This is essential to facilitate advanced planning and scheduling, and to avoid preventable costs to the PI and/or Department for vendor provided resources.	
2.	**Completely remove inventory of biological agents* *via authorized transfer or disposal, (see no. 3, 4, 5 below) and* in accordance with approved IBC procedures described in each specific eIBC Protocol.** ** This includes any samples from animals/humans, cell lines, bacteria, viruses, fungi, recombinant or synthetic nucleic acids (e.g., plasmids), vectors, prions, and toxins.*	
3.	**Internal Transfer of Biological Agents* to another SLU researcher.** • This requires IBC approval before transfer, even if biological materials are only being stored and not used. *NOTE: This should be done well in advance.*	
4.	**External Transfer of Biological Agents* to another institution.** • This needs to be done by personnel with current DOT/IATA training in accordance with all applicable laws and regulations.	
5.	**Disposal of all other biological agents*.** • Must be done by IBC approved personnel using IBC approved methods for biological agent inactivation and disposal. • This also includes disposal of sharps into approved sharps containers and arranging pickup of biowaste by EHS. • Email: biowaste@slu.edu to coordinate a plan for biohazard waste disposal and pickup or complete the Biological Waste Disposal Request at https://docs.google.com/forms/d/e/1FAIpQLSd--bgJA8aef2hs3FPmJJA7cxin6ebMyHondhm17O-G7E2m_g/viewform	
6.	**Decontaminate equipment and other instruments.** • Needs to be performed on all items, including before transfer (both internal and external transfers). • Empty all refrigerators, freezers, incubators, etc. • Decontaminate with broad spectrum agent. ○ Wipe down with freshly prepared 10% bleach, wait 20 minutes, then dry and follow-up with 70% ethanol. • Label all decontaminated equipment and instruments as such.	
7.	**Decontaminate all work surfaces, including all bench tops, chairs, cabinets, drawers, etc.** • Wipe down with freshly prepared 10% bleach, wait 20 minutes, then dry and follow-up with 70% ethanol. • Label all decontaminated surfaces as such.	
8.	**Biosafety Cabinets – Special Considerations: Gas sterilization by qualified contractor.** • Arrange to have biosafety cabinet (BSC) gas sterilized if it will be relocated to another internal location, relocated to another institutions, or if it will be disposed of. • Contact Midwest Recycling (MRC) for disposal, if applicable.	
9.	**Contact the IBC Manager to close remaining eIBC protocols.**	

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RADIOACTIVE MATERIALS AND WASTE These steps MUST be followed *PRIOR TO* a relocation within the University, termination of your Radioactive Materials Permit, and/or relocating to another university.		
1.	**Contact the Associate Radiation Safety Officer as soon as it is known that a PI intends to relocate to another SLU laboratory, relocate to another institution, or terminate a radioactive materials permit.** • Prior to moving to another location within the University, complete and submit an "Application for Approved Location Change", available at this link: https://www.slu.edu/research/faculty-resources/research-integrity-safety/documents/rsc-application-for-approved-location-change.docx • ***NOTE: Do NOT dispose of ANY past or present Lab Radiation Safety Records**.***	
2.	**Transfer radioactive materials (excluding waste) to another SLU Permit Holder.** • Must be done through the SLU Radiation Safety Office. • The transferee permit holder must be approved in advance for the radionuclides(s) and activities to be transferred. • If the radioactive materials must be moved elsewhere on campus by vehicle, contact Radiation Safety staff to perform this transfer for you. • *Radioactive materials are not generally allowed to be transferred to another institution except under unusual circumstances. Such transfers must comply with U.S. Department of Transportation (DOT) regulations.*	
3.	**Dispose of all radioactive waste prior to the move.** • Pack all waste properly as outlined in the Radioactive Waste Packing Instructions: https://www.slu.edu/research/faculty-resources/research-integrity-safety/environmental-health-safety/documents/radioactive-waste-packaging-instructions-for-labs.pdf • Request a radioactive waste pick up here: Request for Radioactive Waste Pick Up	
4.	**Complete thorough contamination surveys of all laboratory surfaces and equipment that has been used in conjunction with radioactive materials.** • Both wipe tests and meter surveys are required for all radionuclides, except tritium (H-3). Only wipe tests are required for H-3 (tritium). • Decontaminate any laboratory surfaces and equipment surfaces found to be contaminated. • Document all wipe test and meter survey results, decontamination efforts, and follow-up wipe tests and meter survey results demonstrating successful decontamination.	
5.	**Remove "Radioactive Materials" label, etc.** • Remove radioactive materials labels, stickers and tape from laboratory surfaces, equipment, instruments, and other items confirmed to be free of radioactive contamination after completing no. 4 above. • Do NOT remove postings on the doors or rooms. Radiation Safety staff will remove.	
6.	**Radiation Dosimeters:** Prior to departure, submit all radiation dosimeters to the EHS dosimetry coordinator.	
7.	**Contact Radiation Safety Staff to arrange for decommissioning confirmatory surveys**. *(**Retention/transfer of radiation safety records will also be discussed.)*	

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GENERAL LABORATORY CLOSE-OUT		
1.	**Remove absorbent material and tape from all lab surfaces, including benches, cabinet shelves and fume hoods.** • If contaminated with hazardous material, decontaminate surfaces and dispose of materials as appropriate hazardous waste.	
2.	**Equipment** • Wipe down and disinfect any equipment and lab surfaces that are likely to be contaminated, e.g. refrigerators, water baths, incubators, centrifuges. • Refrigerators should be emptied and thoroughly wiped down inside and out. • The PI or designee must verify proper decontamination of all equipment prior to being released to non-lab personnel (e.g. movers, repair services or for SLU surplus storage). • Refrigerators or freezers designated for disposal, must be collected by Distribution Services for final disposal by Midwest Recycling (MRC). MRC will remove freon prior to disposal. • Other equipment containing hazardous materials (such as oil, mercury, asbestos) must have the hazardous material removed before disposed.	
3.	**Empty and properly dispose of all materials from all drawers, cabinets, shelving, and fume hoods.** • All specimens must be properly disposed of or transferred to an appropriate location with the approval of the Department. • All unwanted paperwork with confidential information (data or personal identifiers) should be shredded and all other unwanted paperwork, magazines, books, etc. should either be recycled or given away. • Wipe down with an appropriate solvent or cleaning agent all surfaces of fume hoods, laboratory benches and cabinets where chemicals were used or stored to remove residual chemicals.	
4.	**Sharps Containers** • All sharps should be placed in a red sharps container. All sharps containers much be sealed and taped prior to disposal in Stericycle Inc. biohazard boxes.	
5.	**Glass Waste** • Broken glass and other non-hazardous glass waste should be collected in a designated broken glass box or a labeled, sturdy cardboard box for disposal by custodial services staff. • Broken glass boxes are intended for clean broken glass and must not contain any hazardous materials (e.g. mercury, bulbs, chemicals, biowaste, etc.) • Broken glass boxes (purchased or created) must be sturdy, less than 45 lbs. and sealed prior to removal by custodial services staff.	
6.	**Laboratory floors should be swept and cleaned before vacating.** • Ensure that all microtubes, pipet tips, etc. that may have fallen under equipment and in corners are properly disposed of.	

SAINT LOUIS UNIVERSITY

CERTIFICATIONS OF P.I. LABORATORY DECOMMISSIONING COMPLETION & REVIEW

P.I. Name: _____ **Department:** _____

Lab Location(s): _____

P.I. Signature: _____ **Date Completed:** _____

Dept. Chair Signature: _____ **Date Reviewed:** _____

EHS Director (or designee): _____ **Date:** _____