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EHS-418, LABORATORY MOVES, RELOCATIONS AND DECOMMISSIONING GUIDELINES

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1.0 Introduction

1.1 Purpose

The purpose of this document is to provide direction and guidance for proper laboratory closure (including moves and relocations within campus) and decommissioning of all Emory University laboratories or other research related areas. Proper closure and decommissioning prepares a laboratory to be called “Safe and Compliant.” and allows other users to safely use the space.

A laboratory space that has been closed and decommissioned is a space safe for individuals unfamiliar with the laboratory to enter, reduces disposal costs associated with unwanted and unknown hazardous materials, and encourages sustainability through redistribution of unwanted, functioning laboratory equipment and supplies.

- Sections 2.0 – 6.0 contain detailed instructions for an efficient decommissioning process.
- Section 7.0 contains a summary of these items with a checklist.

Your designated point of contact throughout this process is your EHSO Research Safety Building Liaison. <http://ehso.emory.edu/about/contact.html>
It is recommended that you contact your EHSO Research Safety Building Liaison as soon as you have a plan for the move.

2.0 Responsibilities

2.1 Environmental Health and Safety Office (EHSO)

- Develops guidelines for proper decommissioning of laboratory spaces
- Posts “Safe & Compliant” certificate upon final inspection of decommissioned laboratory spaces.
- Assists in redistribution of decontaminated, functioning laboratory equipment and supplies.
- Updates information in the electronic management system, confirms removal/ transfer of personnel.
- Officially confirms and terminates Biological Safety, Chemical Safety, Radiation Safety and Chemicals in Animals approvals and licenses.

2.2 Principal Investigators

- Notifies Department Management of upcoming relocation.
- Notifies EHSO of a move to a new lab space or laboratory closure.
- Notifies EHSO to terminate or amend current research protocols.
- Completes material transfer agreements (as appropriate).
- Removes ALL hazardous substances from their assigned laboratory space(s).
- Follows guidelines for proper decommissioning of laboratory spaces.

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- Closes or transfers any regulatory permits, such as USDA or CDC Import Permits.

2.3 Laboratory Personnel (Students, Staff & Research Associates)

- Follows guidelines for proper decommissioning of laboratory spaces (this document).
- Submits revised Laboratory Signage Requirements Form with updated emergency contacts, if applicable.

2.4 Department Management (Chair & Department Administrator)

- Supports EHSO, Principal Investigators and Laboratory Personnel in preparing a laboratory space to be "Safe and Complaint."
- Notifies EHSO of investigators leaving the department.
- Notifies EHSO of new investigators arriving to the department and moving into previously vacated spaces.

2.5 Documents

- Equipment Hazard Tag.
- Equipment Hazard Tag Guidance.
- Guidelines for Chemical Waste Management in Laboratories.
- SAF-310, Biosafety Manual.
- Biological Material Transport & Transfer Documentation E-Module.
- SAF-351, Chemical Hygiene Plan.
- RAD-030, Radiation Safety Manual.
- Emory University Radioactive Materials Transfer Form.
- Laboratory Signage Requirements Form.

All documents and forms are available at EHSO.Emory.edu

3.0 General Guidelines

- Package and move lab items only during normal business hours so emergency staff will be available to help if there is a spill or accident.
- Arrange for heavy equipment to be transported for you:
 - Call Staging & Moving Services
<http://www.campserv.emory.edu/fm/exterior/staging.html> or the project vendor.
- Never transport hazardous materials alone.
 - Wear appropriate personal protective equipment for the material being handled.
- Perform basic surface and visible decontamination of all assigned laboratory spaces and shared spaces including, but not limited to:
 - Stock rooms.
 - Cold rooms.
 - Waste collection areas.
 - Dark rooms.
 - Equipment rooms.
 - Perform basic surface and visible decontamination of all laboratory equipment (e.g. freezers and refrigerators).
- An Equipment Hazard Tag should be affixed to all laboratory equipment when decontamination is complete.

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- In the event of an employee exposure or spill (chemical, biological or radiological).
 - Call EHSO Spill Team at (404) 727-2888 (24 hours a day, 7 days a week).
 - Refer to “Just in Time” – Guide to Campus Emergencies.

4.0 Cleanup and Decontamination

4.1 Hazardous Waste

- Identify the types of waste that are present in each of these areas. Hazardous waste disposal guidelines **MUST** be followed and are available on the EHSO website:
 - Chemical Waste: Guidelines for Chemical Waste Management in Laboratories.
 - Biological Waste: SAF-310, Biosafety Manual.
 - Radiological Waste: RAD-030, Radiation Safety Manual.
 - Electronic Waste: <http://it.emory.edu/electronicwaste/>

4.2 Chemical Waste

- Chemical waste containers must be labeled with EHSO Chemical Waste Labels.
- EHSO must be contacted to schedule a chemical pick-up. Use the Waste Collection Form available on [EHSO.Emory.edu](http://ehso.emory.edu).

4.3 Radiological Waste

- Radioactive Waste must be disposed of through EHSO. Guidance for packaging and disposing of radioactive waste are available on the EHSO website in the RAD-030, Radiation Safety Manual.

4.4 Biological Waste

- Biological waste must be disposed of through Stericycle.

4.5 Sharps

- Dispose of ALL sharps, needles and syringes (used or unused), in appropriate sharps containers. Sharps containers are disposed through Stericycle.

4.6 Universal/Electronic Waste

- Universal Waste: Dispose of lamps/bulbs, batteries, aerosol cans, oils/lubricants and mercury containing articles through EHSO. Use the Waste Collection Form available on ehso.emory.edu.
- Electronic Waste: visit <http://it.emory.edu/electronicwaste/> for more information.

4.7 Laboratory Spaces, Shared Spaces and Equipment

- All areas of chemical, biological and radioactive use and storage must be

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cleaned. This includes but is not limited to:

- Bench tops.
- Chemical storage cabinets.
- Chemical fume hoods.
- Biological safety cabinets.
- Laboratory shelves.
- Ovens.
- Incubators.
- Refrigerators.
- Freezers.
- Shared Spaces:
 - Check all shared spaces for chemicals, biological materials, waste, supplies, equipment, etc.
 - Clean work surfaces.
 - Unwanted, usable items (lab equipment, lab supplies, chemical reagents, etc.) in good condition.
 - All usable chemical reagents and lab equipment and supplies can be transferred to another investigator in the same department.
- If unable to transfer these items, then Contact EHSO Research Safety Building Liaison <http://ehso.emory.edu/about/contact.html> to assist in redistribution.
 - All lab equipment must be cleaned by laboratory personnel and an Equipment Hazard Tag affixed prior to transfer.
 - Contact EHSO Research Safety Building Liaison <http://ehso.emory.edu/about/contact.html> regarding decontamination of Biological Safety Cabinets, Laminar Flow Hoods, and Glove Boxes prior to removal from lab.
 - Contact EHSO Research Safety Building Liaison <http://ehso.emory.edu/about/contact.html> to provide information on the disposition of Class 3B and Class 4 Laser Equipment.

4.8 Chemical Reagents

- Chemical reagents must be securely closed and boxed according to compatibility.
- Email EHSO Research Safety Building Liaison <http://ehso.emory.edu/about/contact.html> for additional guidance.

4.9 Radioactive Materials

- The Radiation Safety Liaison must be contacted as soon as possible.
- Laboratory personnel must wipe down fume hood work surfaces, sinks, bench tops and equipment where radioisotopes were used.
- Laboratory personnel must remove radioactive labels, stickers, and tape from all facility equipment, refrigerators, sinks, and hoods following decontamination.
- For laboratory closures, all dosimeter badges, survey meters, radioactive sealed sources, and isotope inventory must be returned to EHSO.
- The Radiation Safety Liaison will work with lab personnel or PI to complete

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the Radiation Safety decommissioning and closeout/transfer of license.

4.10 Controlled Substances

- Follow guidance for disposal as indicated in the Emory University Policy 7.25 Research Use of Controlled Substances Subsection (iv)
- Controlled Substances must be disposed of according to Federal Regulations.
- Drug disposal must be conducted through a Reverse Distributor.
- DEA and GA Board Pharmacy will require a change of address. Please visit the DEA website and the State Board of Pharmacy website for more information:
 - DEA Website: [DEA Forms](#).
 - State Board of Pharmacy website: <https://gbp.georgia.gov/>.
 - For additional information refer to Controlled Substance Policy & Procedures.
- Contact Emory University Office of Compliance for additional guidance. <http://compliance.emory.edu/index.html>

4.11 Biological Materials

- Biological materials must be transported in a leak proof primary container and securely positioned in a secondary leak proof container (ex: ice chest or cooler). Secondary containers must be clearly labeled with Biohazard symbol.
- Biological materials stored in freezers and refrigerators must be secured.
- Freezers may be moved with samples inside but must be prepared by laboratory staff for transport. Laboratory personnel should ensure that samples are packed into non-breakable containers (plastic, metal or cardboard).
- All voids within the freezer should be filled with packing material to prevent the contents from shifting during transit. The outside of the freezer should be decontaminated, and an Equipment Hazard Tag affixed prior to moving it out of the laboratory.
- Transportation and shipment of biological materials off-campus must be done according to national transportation rules.
- Contact your EHSO Research Safety Building Liaison <http://ehso.emory.edu/about/contact.html> for additional guidance.
- Laboratories moving off campus that need to transport biological or infectious samples should:
 - Use a moving company to transport the samples.
 - Pack and ship the samples through a shipping company (i.e., FedEx, DHL, UPS).
 - If the lab uses a moving company to transport their samples, the company must be Department of Transportation (DOT) certified to transport biological and infectious material and have a method for refrigerating samples during transport.
 - If the lab ships their samples through a shipping company, laboratory personnel who pack the samples must have taken Shipment of

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- Infectious Agents and Biological Materials Training within the past two years and pack the samples according to DOT and IATA regulations.
- Ensure all permits to transport certain samples (i.e. soil) are current.

4.12 Animal and Human Tissue

- Animal parts, carcasses, excreta, bedding, etc. must be disposed of through Division of Animal Resources (DAR).
- Human tissue specimens must be placed in the appropriate container and disposed of through Stericycle.
- Tissue held in a liquid preservative must be separated from the liquid prior to disposal through Stericycle.
- The preservative may require disposal as hazardous chemical waste.
- Refer to the Guidelines for Chemical Waste Management in Laboratories.

4.13 Asbestos Containing Materials (ACM)

- Material identified as ACM must be disposed of through EHSO. This includes cementitious lab/table tops, woven heat protection equipment (gloves, hot pads, etc.), older laboratory fume hoods (cementitious panels inside) and ovens.

4.14 Other Hazardous Materials

- There can be hazardous substances within laboratory equipment.
 - Examples: Freon, lead paint, mercury and PCBs.
- Mercury containing equipment:
 - Manometers, thermometers, barometers, mercury switches, UV lamps.
- PCB Containing Equipment:
 - Diffusion Pumps, transformers.
- Freon Containing Equipment:
 - Refrigerators, freezers, low-temperature chambers.
- Email EHSO Research Safety Building Liaison <http://ehso.emory.edu/about/contact.html> for additional guidance.

4.15 Gas Cylinders

- Unwanted gas cylinders must be returned to the vendor.
- Compressed gas cylinders and cryogenic gas cylinders must be picked up by the vendor.

5.0 Material Transfer Agreements (MTAs)

Material Transfer Agreements (MTA) are used to transfer materials (generally biological) from one institution to another. An MTA is a contract between the owner of a material and the intended recipient governing the transfer and subsequent use of the material. Examples: bacteria, cultures, nucleotides, proteins, plasmids, cell lines, transgenic animals, and pharmaceuticals.

Since an MTA is a contract that governs the transfer of materials, it also covers issues such as ownership of the transferred materials, modifications and derivatives made by the recipient, limitations on use of the materials, and confidentiality.



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- Contact the Emory University Office of Technology Transfer for further guidance. <http://www.ott.emory.edu/index.html>

6.0 References

- ANSI/AIHA Z9.11- Laboratory Decommissioning Guidelines from NIH.
- Biosafety in Microbiological and Biomedical Laboratories, 5th Edition <http://www.cdc.gov/biosafety/publications/bmb15/index.htm>.
- Committee on Prudent Practices for Handling, Storage, and Disposal of Chemicals in Laboratories, Board on Chemical Sciences and Technology, Commission on Physical Sciences, Mathematics, and Applications, National Research Council, . 2007. Prudent Practices in the Laboratory: Handling and Disposing of Chemicals, National Academy Press: Washington, D.C.
- EPA Environmental Management System Standard - 40 CFR 262.105 (b)(8)
- OSHA Laboratory Standard 1910.1450 (Occupational Exposure to Hazardous Chemicals in the Lab) - 1910.1450.

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7.0 Laboratory Moves, Relocations and Decommissioning Summary

7.1 These items should be reviewed for the entire lab to be decommissioned.

- Notify EHSO Research Safety Building Liaison and arrange for initial meeting to review decommissioning process.
- Complete Material Transfer Agreements (MTAs).
- Close DEA controlled substances registration.
- Close CDC or USDA permits.
- Email biosafe@emory.edu to amend, terminate, transfer biological registration.
- Email csp@emory.edu to amend, terminate or transfer chemicals in animals forms.
- Email EHSO Research Building Radiation Safety Liaison to amend, terminate or transfer radioactive material authorization (permit)
- Contact EHSO Research Safety Building Liaison for final decommissioning inspection.

7.2 These items should be reviewed for each space to be decommissioned.

Room Number(s): _____

- Perform preliminary clean-out and basic surface and visible decontamination. Remove all labeling from benches, drawers, cabinets, etc.
- Affix Equipment Hazard Tag to equipment including freezers and refrigerators.
- Dispose all biological, sharps, chemical, controlled substance, radiological, universal and electronic waste.
- Package all chemical and biological reagents and samples with an appropriate vendor. Unwanted chemical and biological reagents are disposed as waste.
- Return unwanted gas cylinders and cryogenic gas cylinders to the vendor.
- Decontaminate work surfaces of Chemical Fume Hoods and Biological Safety Cabinets (if present).
- Check shared spaces for all laboratory owned chemicals, biological materials, waste, supplies, and equipment.
 - Perform preliminary clean-out and basic surface and visible decontamination. Remove all labeling from benches, drawers, cabinets, etc.
- Schedule vendor for decontamination of Biological Safety Cabinets (if moved or transferred) through Emory Express.
- For lab moves within Emory, freezers, refrigerators, and laser devices have been prepared for the move.