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## PROCEDURES FOR LABORATORY MOVES, DECOMMISSIONING & COMMISSIONING

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### 1. PURPOSE

This document provides procedures to those moving to, from, or within the Georgia Tech (GT) laboratory buildings to ensure that the moves are conducted safely; vacated labs are left in a status suitable for renovations and/or new occupants; and new labs are commissioned appropriately from the beginning.

### 2. SCOPE

This document applies to labs that are moving within or off the GT Campus and labs that are moving into new lab spaces at GT.

### 3. RESPONSIBILITIES

#### 3.1. Principal Investigators (PI)

PIs are responsible for the following:

- Notifying Environmental Health and Safety (EHS) when they plan to move within or away from the GT campus prior to the move to ensure all parties have ample time to complete the procedures indicated in this document.
- Verifying that the procedures indicated in this document are completed when applicable.

#### 3.2. EHS

EHS is responsible for the following:

- Providing support to the research community during the laboratory moving, decommissioning and commissioning processes.
- Specific responsibilities for each EHS unit are indicated in the procedures outlined in this document.

#### 3.3. Laboratory, Department and/or School

Laboratory, Department and/or School are responsible for adhering to the steps listed in this document as they prepare for laboratory moves, decommissioning, and commissioning.

### 4. LABORATORY MOVES

To ensure that lab moves are conducted safely, it is critical that the appropriate preparation steps are taken. This section outlines each of these steps depending on what will be moved.

#### 4.1. All Labs

- **Inventory Management:** Purge inventory of any unwanted hazardous items (chemicals, biologicals, radioactive sources, etc.), disposing of them through proper channels detailed further in this document.

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- **Freezers:** Prepare freezers (-80°C and -20°C) for the move.
  - If the freezer will be moved with samples inside (see **Freezer Transportation** under 4.2.) **NOTE:** hazardous chemicals and radioactive materials are not permitted to be moved within freezers.
  - If the freezer will not be moved with samples, remove items. Then, defrost the freezer and clean the inside prior to the move (see procedures for cleaning below under **Refrigerators/Combo Units**).
- **Refrigerators/Combo Units:** Prepare refrigerators and refrigerator/freezer combo units for the move:
  - Emptying all items from refrigerators and refrigerator/freezer combo units into appropriate storage containers.
  - Defrost freezers.
  - Wipe down the inside of the equipment prior to the move. If biological/infectious materials were previously stored in the equipment, be sure to use an appropriate disinfectant. While cleaning, ensure that you are wearing appropriate personal protective equipment (minimally a lab coat, safety glasses and gloves).
    - If contaminants are present or suspected to be present, contact EHS. EHS can assist in referring labs to a third party company for addressing contamination issues if necessary.
  - Fill out and apply the Equipment Hazard Posting to the outside of the unit.
- **Self-polymerizing or self-heating substances:** Complete a Lab Safety Plan for each hazard class. Contact [Lab and Chemical Safety](#).
- **Pyrophoric Chemicals:** If remaining at Georgia Tech, update permits to include your new location, which includes Lab Safety Plans and Job Hazard Assessments/SOPs. Contact [Lab and Chemical Safety](#).
- **Compressed Gas Cylinders and Cryogenic Liquid Dewars:** For movement of these receptacles outside of the current lab building you occupy:
  - Disconnect from equipment and cap the cylinder.
  - Move to your building's holding area for empty cylinders.
  - Do not roll/move dewars via campus sidewalks if the move is from one campus building to another. These dewars can be moved by the vendor supplying the cryogenic material or another approved moving company given appropriate arrangements with that party. Alternatively, the supplying vendor can be contacted, a return requested and re-order to the new lab location.

For intra-building movement of dewars and cylinders:

- Dewars must always be transported in the upright position – never roll or transport in any manner on its side.
- Dewars without wheels must always be transported with a specifically-designed cylinder transport cart.

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- Always transport in a well-ventilated area; do not transport in an enclosed truck bed. All precautions must be taken to prevent spills as this has the potential to create an oxygen-deficient atmosphere or flammable-vapor cloud.
- Do not allow any unprotected body part to come in contact with vessels or pipes of the vessel that are not insulated.
- No smoking during the transport of liquid hydrogen or liquid oxygen. Liquid hydrogen and liquid oxygen must be protected from all sources of ignition or static charges during movement.
- **Chemical Inventory:**
  - Inventory Management: Look through chemical inventory and dispose of those items that fall under the following categories as chemical waste:
    - Are not labeled (unknowns)
    - Legacy samples – known/labeled samples from previous students or researchers that were not disposed of properly before leaving GT.
    - No longer needed.
  - If staying on campus: Contact [Lab and Chemical Safety](#) to ensure that EHS has identified your new lab/storage location. Depending on your lab's move date, your reconciliation due date may change.
  - If you are leaving campus: Contact [Lab and Chemical Safety](#) to ensure your inventory is closed out correctly.
- **Glove Boxes Containing Chemicals**: Contact EHS Hazardous Waste (404-894-6224) or [ed.pozniak@ehs.gatech.edu](mailto:ed.pozniak@ehs.gatech.edu) for an evaluation.
- **Movement/Shipment of Chemicals to New Location**: EHS provides shipping services for normal work such as material exchange for research collaboration or samples of a material being sent to a sponsor. However, EHS does not provide shipping services for the movement of chemical inventory to a new location due to a lab move (either on or off campus).
  - On a case-by-case basis we may, at our discretion, assist with the shipment of limited amounts of specialty chemicals.
  - EHS can recommend outside contractors who can perform this service.
- **Disposition of Remaining "Virgin" Chemicals**:
  - Chemical Transfers: Some departments may choose to redistribute useable chemicals by making them available to other researchers either by visiting the lab space or examining the inventory. EHS can assist in making on-the spot inventory transfers of these items.
    - **Chemical Transfer Rules**:
      - At least one lab member is required to be in the lab during the chemical transfer so that there will be no confusion about what is available to others.
      - EHS requires at least a three day notice to adequately prepare for the chemical transfer.

- The chemical transfer is only to be held for two hours.
  - EHS Hazardous Waste will remove and dispose of any remaining chemicals. Material that is to be retained must be segregated and marked accordingly. The lab, department or school is responsible for identifying and labeling all containers including waste and samples/reaction products. Small, like items (such as compatible chemicals or materials non-reactive with one another but similar in hazard properties) may be placed in zip lock bags and labeled.

- **Equipment Set-Ups:** Disassemble all apparatuses and set-ups such as stills.

#### 4.2. Labs with Biological/Infectious Material and/or Recombinant/Synthetic Nucleic Acid Molecules (rDNA):

Labs working with biological/infectious materials and/or rDNA must complete the following to prepare for the move:

- **Inventory Management:** Look through inventory of biological samples and dispose of those that fall under the following categories as biohazard waste:
  - Are not labeled (unknowns)
  - Legacy samples – known/labeled samples from previous students or researchers that were not disposed of properly before leaving GT.
  - No longer needed
- **Decontaminate Equipment:** Decontaminate all equipment used to work with biological agents (incubators, centrifuges, shakers, water baths, etc.) Be sure to drain water jackets of incubators. Once equipment has been decontaminated, fill out and post the Equipment Hazard Tag to the outside of the equipment.
- **Freezer Transportation:** In some cases, freezers may be moved with biological samples inside. To do this, they must be prepared by lab staff for transport:
  - Ensure samples are packed in non-breakable containers.
  - Fill all voids within the freezer to prevent the contents from shifting during transport.
  - Decontaminate the outside of the freezer prior to moving it out of the lab.
  - Tape and/or lock the freezer shut so that it is securely closed.
  - Fill out and apply the Freezer Seal Posting over the opening to the freezer.
- **Movement/Shipment of Biological/Infectious Materials and/or rDNA to New Location:** EHS provides shipping services for normal work such as material exchange for research collaboration or samples of a material being sent to a sponsor. . However, we do not provide shipping services for the movement of these materials to a new location due to a lab move (either on or off campus).
  - On a case-by-case basis we may, at our discretion, assist with the shipment of limited amounts of biological/infectious materials and/or rDNA.
  - EHS can recommend outside contractors who can perform this service.
- **Biohazard Waste:** Dispose of all biohazard waste through EHS Hazardous Waste (404-894-6224)
  - This includes sharps containers and animal carcasses/tissue.

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- Liquid biohazard waste should be treated with a disinfectant and disposed of down the drain after allowing for the appropriate contact time.
- **Waste must not be moved to your new lab location.**
- **Biosafety Cabinets:** Biosafety cabinets must be decontaminated by GT's biosafety cabinet service vendor using vapor hydrogen peroxide prior to the move. Once they are decontaminated, they must not be used until they have arrived in their new location and have been re-certified. The cost of decontamination is covered by the PI or department/school. Contact the [Biosafety Office](#) to coordinate this effort.

### 4.3. Biological and Chemical Hazardous Waste:

Labs with hazardous waste should complete the following prior to the move:

- Generate waste pickup requests for all waste in the lab through the chemical inventory system. This keeps your chemical inventory up to date.
- Segregate waste to be picked up from other lab items. Schedule permitting, waste will be picked up prior to the lab move.
- **Labs must not move waste to their new lab location.**
- **Cost Sharing:** Under most circumstances, EHS will absorb the cost of waste disposal. However, should inventories be large or desired time frames short, or if the lab, department or school fails to perform those tasks assigned above, EHS reserves the ability to charge the appropriate lab, department or school for extra ordinary expenditures.
  - EHS does not clean labs or equipment. If services beyond normal custodial are required, they are the responsibility of the laboratory, department, or school. EHS can recommend outside contractors.

### 4.4. Labs with Radioactive Material (RAM):

Labs with RAM must complete the following prior to the move:

- If the lab is moving within the GT Campus, email [Office of Radiological Safety](#) to request that the Form A be amended with new storage and use locations. Example text is below.
  - My lab will be moving to <building> on <date>. I would like to amend my Form A to reflect the new storage and use locations of my radioactive material. My new storage location is <building room #>, and my new use location is <building room #>.
- Schedule service technician visit to remove sources from liquid scintillation counters (LSCs).
- Schedule a waste pickup (<http://www.ehs.gatech.edu/radiation/ram/waste-pickup-request>) to collect all radioactive waste.
- Make sure a survey has been performed since the last use of radioactive material.
- Office of Radiation Safety (ORS) will perform a survey within 1 week before the move date.
- Labs, with ORS assistance, must move their own RAM, as well as any equipment or other items which may be contaminated.

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- Heavy movers will be required to move LSCs (without the sources in them).

### 4.5. Labs with X-Ray Machines

Labs with X-ray machines must complete the following prior to the move:

- Email [Office of Radiological Safety](#) a scanned version of a signed [Form C](#).
- Schedule service technician visit to prepare X-ray machine for transport, and for re-installation in new location.
- Heavy movers may be required to move X-ray machines.

### 4.6. Labs with Lasers:

Labs with lasers must complete the following prior to the move:

- Email [Laser Safety Officer](#) to notify him of your new location. Example text is below.
  - My lab will be moving to <building> on <date>. I would like to notify you that the new location of my lasers will be <building room #>.
- Remove liquid dyes. If not reusable, submit waste pickup request to EHS Hazardous Waste (404-894-6224).
- Purge excimer gas.

## 5. DECOMMISSIONING LABS AFTER A MOVE

To ensure a proper decommissioning of a lab space after a move, **it is imperative the lab take responsibility to ensure the following items are completed prior to leaving campus**. This allows for a smoother transition for new occupants and/or renovations. It also decreases the cost of waste disposal due to a decreased risk of later discovery of “unknowns”.

The final step in the decommissioning process is for labs to contact EHS for a decommissioning walkthrough and for EHS to post a tag on the lab door, indicating that the lab has been properly decommissioned.

### 5.1. All Labs:

All labs must complete the following:

- Wipe of countertops and sweep floors.
- Empty drawers and shelves.
- Label and segregate waste remaining in the lab. Submit a pickup request via the Chemical Inventory System.
- Ensure that all items are removed from shared storage areas (i.e., cold rooms, tissue culture rooms, and equipment rooms).
- Remove all lab postings and signage (except for RAM signage).
- Deface Biohazard postings from equipment and lab doors after biohazardous materials have been removed and a decontamination procedure has been completed.
- Complete and attach surplus paperwork to all items to be sent to Surplus. Contact your department/school property coordinator (often one of the administrative staff) for help if needed.

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- Place all trash in trash containers. If trash does not fit in the container, take it to the building dumpster for disposal.
- Place broken glass disposal boxes in the building dumpster.

### 5.2. Labs with Biological/Infectious Material and/or rDNA:

Labs that work with biological/infectious material and/or rDNA must also disinfect all benchtops and shelves.

### 5.3. Labs with Radioactive Material:

ORS staff must perform a close-out survey.

### 5.4. Labs with X-Ray Machines:

Labs with X-ray machines must remove the X-ray posting from the lab door, as well as any other X-ray postings (emergency procedure, operating procedure, etc.) in the lab.

### 5.5. Labs with Lasers:

Labs with lasers must remove laser warning signs, battery operated warning lights, and any other laser signs (emergency procedure, etc.) from the door and the lab.

### 5.6. After all of the Above Items are Completed:

Lab must contact EHS so that a post move walkthrough may be completed. EHS will post the Lab Decommissioning Posting on the lab door (or associated benches if in a shared, multi-marginal lab), confirming that the lab has been properly decommissioned.

## 6. COMMISSIONING NEW LAB

**6.1. Meeting with EHS:** It is ideal if the Chemical Safety Officer (along with the Biosafety Officer and/or Radiation Safety Officer as applicable) can meet with PI's new to GT as soon as they arrive to campus. This allows for EHS to assist new labs transition to the campus and get their labs operational as soon as possible.

### 6.2. All Labs:

All labs must complete the following:

- Unpack chemicals and reagents.
- Post [Pink Cards](#) to distinguish your area from your neighbors, indicate hazards in the lab space and list emergency contact information. Hard copies of Pink Cards may be requested from EHS.
- Post [Safety Data Sheet Information Poster](#), [Waste Pick-Up Poster](#) and [Emergency Procedures Poster](#) in laboratory area or 20 feet apart (whatever seems reasonable). Hard copies of these posters may be requested from EHS.
- Contact the [Lab and Chemical Safety Office](#) for assistance with setting up the lab's chemical inventory or transferring the chemical inventory within Georgia Tech's chemical inventory system.

### 6.3. Labs with Biological/Infectious Material and/or rDNA:

Labs that work with biological/infectious material and/or rDNA must also:

- Contact the [Biosafety Office](#) to notify them of biosafety cabinet, laminar flow hood/clean benches and/or cage change stations that have been moved into the new

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lab. EHS will coordinate any necessary repairs and re-certification of all BSCs, Laminar Flow Hoods and Clean Benches that were moved to the new location.

- Place EHS-provided Biohazard Stickers on all equipment that is used to process or house biological/infectious materials or recombinant/synthetic nucleic acid molecules.

### 6.4. Hazardous Waste:

As research begins, labs must start fresh with new hazardous waste containers. These include chemical waste containers, biomedical waste containers, and sharps containers. For questions about this, please contact Ed Pozniak (Hazardous Materials Manager, EHS): [ed.pozniak@ehs.gatech.edu](mailto:ed.pozniak@ehs.gatech.edu).

### 6.5. Labs with Radioactive Material

ORS will label and post storage locations, use locations and equipment used to work with RAM (example: chemical fume hoods).

### 6.6. Labs with X-Ray Machines

Service technician will re-install machine and confirm that it is operational. Once operation, ORS will survey the machine before it is put back into routine operation and post the room.

### 6.7. Labs with Lasers

ORS will ensure appropriate signs and postings are present.

## 7. SUPPORTING DOCUMENTS

- 7.1. Freezer Seal Posting
- 7.2. Equipment Hazard Posting
- 7.3. Lab Decommissioning Posting
- 7.4. [Pink Cards](#)
- 7.5. [Safety Data Sheet Information Poster](#)
- 7.6. [Waste Pick-Up Poster](#)
- 7.7. [Emergency Procedures Poster](#)
- 7.8. Lab Moves Checklist template