

**University of Florida Environmental Health and Safety**  
**Laboratory Close Out Policy**

This policy addresses laboratory closures and the associated disposition of hazardous materials.

All non-fixed equipment and supplies are required to be removed from laboratories for closeout or relocation. Exceptions must be secured from EH&S in writing.

No hazardous materials shall be disposed of down drains or into the regular trash receptacles.

Proper disposition of all hazardous materials used in laboratories is the responsibility of the principal investigator or researcher to whom a laboratory is assigned. Ultimate responsibility for hazardous materials management lies with each departmental chair.

Environmental Health and Safety (EH&S) will conduct a laboratory closeout survey following the actual closing of the lab. The close-out survey must be completed and EH&S approval given to the department in order to complete the Personnel Office's "Employee Exit Checklist". Please schedule a date for this survey as soon as possible but no later than one week in advance of the request date.

# **CLOSE-OUT PROCEDURES FOR HAZARDOUS MATERIALS IN LABORATORIES**

## **CHEMICALS**

### **GENERAL**

- ◆ Under no circumstances may any chemical be disposed of into the sewer or trash.
- ◆ Check refrigerators, freezers, fume hoods and bench tops as well as storage cabinets for chemical containers.
- ◆ Determine which chemicals are usable and relocate/transfer responsibility for these materials to another party who is willing to take charge of them. If chemicals will be moved to another laboratory, ensure that the EH&S policy "Movement of Laboratory Owned Research Chemicals" is followed. This is attached in Appendix B.
- ◆ If a new user cannot be found, the materials must be disposed of properly through EH&S Hazardous Materials Management. Assure that all waste containers of chemicals are labeled with the name of the chemical(s). Hazardous waste labels are available through UF Printing and Graphics Office free of charge. Abbreviations or chemical symbols are not acceptable labeling. All containers must be securely sealed and not be leaking. All containers (beakers, flasks, etc.) must be emptied and cleaned. Hazardous chemical wastes must be clearly labeled and collected for disposal. Submit a "Chemical Waste Pick Up Request" form to EH&S Hazardous Materials Management for disposal of chemicals.
- ◆ Wash all fume hood surfaces and counter tops.

### **CONTROLLED SUBSTANCES**

- ◆ Transferring ownership of a controlled substance to another licensed individual must be recorded in writing. If the substance(s) is distributed to another person, their name, address and DEA registration number must be recorded in the substance's continuing record, along with date and number of units distributed. Keep records for at least two years.
- ◆ If the substance(s) is disposed of, include date, manner of disposal, and quantity of substance disposed. Keep disposal records for at least two years
- ◆ Contact EH&S Hazardous Materials Management to obtain information on proper disposal methods.
- ◆ If substances are relocated, DEA must be notified in writing of new location.

### **COMPRESSED GAS CYLINDERS**

- ◆ Remove gas connections, replace cylinder caps, and return cylinders to suppliers.

- ◆ If cylinders are non-returnable, consult EH&S Hazardous Materials Management for disposal.

## **BIOLOGICAL MATERIALS**

### **ANIMAL AND HUMAN TISSUE**

- ◆ Animal tissue can be disposed of by incineration. Please contact Animal Resources.
- ◆ If human tissue is in a recognizable form, contact the Anatomical Board for disposal in the crematorium. Other human tissue specimens should be placed in a biohazard waste bag for disposal in the biomedical waste receptacle.
- ◆ If tissue is held in a liquid preservative, tissue and liquid should be separated. Liquid preservative usually needs to be disposed of as a hazardous waste. Contact EH&S Hazardous Materials Management for assistance. The preservative may not be poured into the sanitary sewer.
- ◆ If appropriate disposal is uncertain, refer to the Biological Waste Disposal Policy or contact the Biosafety Officer.
- ◆ Defrost and clean refrigerators and freezers once they are empty. An effective disinfectant is a 1:100 solution of commercial bleach.
- ◆ If the samples need to be saved, locate the appropriate individual to take responsibility for them and notify the Department Chair.

### **MICROORGANISMS, CULTURES, AND RECOMBINANT DNA**

- ◆ All infectious and/or recombinant material shall be inactivated by steam sterilization, placed in the appropriate biohazard bag or box, labeled, and taken to the biomedical waste receptacle for disposal.
- ◆ Liquid material may be inactivated by the addition of commercial bleach to result in a 1:10 dilution. After sitting in the fume hood overnight, the material may be poured down the drain.
- ◆ Please refer to the "Biological Waste Disposal Policy" for guidance on the disposition of biological waste.
- ◆ Clean incubators, drying or curing ovens, refrigerators, and freezers. An appropriate disinfectant is a 1:100 dilution of commercial bleach.
- ◆ If samples need to be saved, locate appropriate person to take responsibility for them and notify the Department Chair.

## **TRANSPORTING BIOLOGICAL MATERIALS**

- ◆ Please refer to Appendix C for requirements and guidelines to be followed for transporting biological materials.

## **RADIOACTIVE MATERIALS**

### **GENERAL**

- ◆ All radioactive material must be disposed of as radioactive waste through Hazardous Materials Management or transferred to another authorized user. If the radioactive material is to be transferred to an approved user at UF, ensure that the appropriate documentation is approved by the Radiation Control Department prior to the transfer. If the radioactive material is to be transferred to another licensee or returned to the manufacturer, make arrangements for the Radiation Control Department to pick up the material for shipment.
- ◆ Radioactive materials may only be moved by the approved user of the materials and transported in appropriately shielded containers.
- ◆ Following removal of all radioactive materials, perform a loose surface contamination survey (and if appropriate, a radiation level survey for gamma emitters) of all former storage and use areas within the laboratories to be closed out. NOTE: Areas of potential residual contamination include refrigerators, freezers, centrifuges, fume hoods, water baths, incubators, sinks, waste storage areas, etc. All areas and equipment that exceed 100 dpm/100cm<sup>2</sup> must be decontaminated and follow-up surveys documented until the area or equipment is less than 100 dpm/100cm<sup>2</sup>. Equipment that cannot be decontaminated must be disposed of as radioactive waste.
- ◆ After the final loose surface contamination survey demonstrating all areas and equipment in the laboratory are less than 100 dpm/100cm<sup>2</sup>, schedule an official close out survey with the Radiation Control Department. Do not allow further use, including housekeeping clean up, of the laboratory until the Radiation Control Department has completed the survey, removed all radioactive material postings and notified the Principal Investigator (PI) that the laboratory has been released.
- ◆ If the Principal Investigator (PI) fails to satisfactorily complete the above steps, the Department Chairperson will be responsible for the completion of the required close out steps. The Department Chairperson is responsible for immediate notification of the Radiation Control Department if the above steps have not been completed.

### **RADIATION PRODUCING DEVICES**

- ◆ The Radiation Control Office is required to maintain an inventory of all radiation producing devices to confirm registration with the State of Florida Department of Health. Each Principal Investigator is responsible for notifying the Radiation Control Office if there is any change, which would render the registration inaccurate. Such information includes: change of use location, sale, transfer or disposal of any radiation machine or major component thereof. Transfers are defined as follows:

1. On Campus Transfers

Since approval for the procurement and use of a radiation producing device was initially given for the original working area and proposed research under the supervision of the approved Principal Investigator, devices shall not be transferred from one area to another or to another individual without approval of the Radiation Control Office.

## 2. Off-Campus Transfers

Radiation producing devices shall not be shipped or transferred to, or from any University facility, or outside organization without prior approval of the Radiation Control Office.

## 3. Disposal of Radiation Producing Device

Prior to the disposal of obsolete or irreparable equipment, the Radiation Control Office must be notified in order to amend inventory lists.

### **LABORATORY EQUIPMENT**

- ◆ All equipment must be disinfected and decontaminated by lab staff and certified as clean and safe for handling. This will include, but not be limited to, all fume hoods, refrigerators, freezers, centrifuges, biological safety cabinets, incubators, ovens, countertops, cabinets etc.
- ◆ Biological safety cabinets must be decontaminated prior to being relocated. Please contact the Biological Safety Office for information.

### **LABORATORY SUPPLIES**

- ◆ Never place laboratory materials, even if sterile or in unopened cartons, into the regular trash for disposal. These will not be accepted into landfills.
- ◆ All glassware, both de-contaminated and non-contaminated must be disposed of in biohazard boxes.
- ◆ All syringes, needles, vacutainers, scalpels etc., must be placed into sharps boxes for disposal.
- ◆ Non-contaminated laboratory supplies may be given to other researchers for use.

### **SHARED AREAS**

- ◆ All shared space must be cleared of materials and cleaned by the departing staff or another PI must assume responsibility for the space and its contents. These shared

spaces will include labs, equipment rooms, storage areas, cold rooms, dark rooms, autoclave rooms, etc.

## Appendix A

### Telephone Numbers:

#### Environmental Health and Safety

Biological Safety Office	352-392-1591
Hazardous Materials Management	352-392-8400
Laboratory Safety Office	352-846-2550
Radiation Control Office-NSC	352-392-7359
Radiation Control Office-HC	352-392-1589

Animal Resources	352-392-2977
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### Hazardous Waste Forms:

The following forms are available free of charge from the UF Printing and Graphics Office, 352-392-1134.

Hazardous Waste Labels	Large- #EHS-CWLBL Small- #EHS-CWLBS
Chemical Waste Pickup Request	EH&S/RSA-1
Radioactive Waste Pick-up Request	EH&S/RSA-2

## **Appendix B**

University of Florida  
Environmental Health and Safety Division

**POLICY:** Movement of Laboratory Owned Research Chemicals

**PURPOSE:** To ensure the safe handling and movement of research chemicals from lab to lab and building to building. This does not effect the movement of new chemicals being delivered.

**Effective Date:** September 1995, Revised July 1998

Departmental staff may move chemical bottles from one laboratory to another laboratory if the following conditions are met:

- Staff who will be doing the moving of the bottles must be trained in the proper handling of chemicals.
- Chemical bottles and containers are in good condition.
- Chemical bottles or containers are adequately labeled.
- Boxes used to move chemicals are in good condition and are sturdy enough to handle weight of the bottles of chemicals.
- Boxes are not excessively large to prohibit overloading or safe handling.
- Bottles of chemicals are segregated and packed into boxes by hazard class. Non-compatible chemicals may not be packed or moved in the same box. (call EH&S for further information.)
- Glass bottles and all bottles containing liquids will be packed in boxes with a buffer of vermiculite or other similar absorbent material. Plastic or unbreakable bottles of powdered or non-liquid chemicals may be packed with compatible chemicals, without absorbent material.
- Each box of chemicals will be inventoried for contents as it is being packed. Required information will include chemical name, number of bottles and quantity in each.
- Boxes must be labeled distinctly with the corresponding inventory page.
- Copies of the inventory must be kept in each box, with the moving crew and in the originating lab.
- Carts used to move boxes must be sturdy enough to handle weight of the boxes and terrain it will be moved over.
- Any compressed gas cylinder being moved must be secured on a cart or rack. Small lecture bottles must be packed as bottles (see above).
- Adequate spill control material must be available for use by the moving crew. If the boxes are being moved between buildings, the spill control material must be available on the vehicle in use.
- Adequate personal protective equipment must be available for the moving crew in the event of a spill. Staff must be trained in the proper method of use.
- EH&S must be notified of the movement of these chemicals prior to the start and at the completion of the move.
- An updated chemical inventory for the originating lab (showing the removal of the chemicals) and the receiving lab (showing the gaining of the chemicals) must be completed and kept on file in each of the respective labs and mailed to EH&S.

If the above procedures can not be met by the department(s) involved with the moving of these chemicals, EH&S will perform the packing, inventorying of the boxes and the move. Contact the EH&S Office at 352-392-1591.

## Appendix C

### **Biological Materials Transport Policy**

(within the UF campus)

This policy is to prevent accidents and to ensure that UF personnel are not exposed to biological materials during their transport. It is intended to ensure compliance with local, state, and federal guidelines and regulations concerning the transport of biological materials. Please note that specific regulations (e.g. DOT, OSHA BBP, CDC) must be observed when shipping or transporting materials outside of campus. For those instructions, please see the chapter on the packaging and shipment of biological materials in the UF Biological Safety Manual.

#### **General requirements for transport of biological materials within the UF campus**

1. Personnel transporting biological materials shall be appropriately trained. This includes Bloodborne Pathogen training for those transporting human blood, and training specific to any individual pathogen being moved.
2. Proper personal protective equipment shall be worn. At a minimum, a lab coat and gloves are required. Goggles shall be worn while packaging and unpacking infectious material.
3. Biological materials shall be placed inside an appropriate leak-proof primary container with a tight-fitting lid. These containers should be plastic, glass, or metal. Amounts of liquid culture greater than 50 ml shall not be transported without written approval from the Biological Safety Office.
4. Primary containers shall be placed within a leak-proof, shatter-resistant secondary container. The surface of the secondary container shall be easily cleaned. It shall be labeled with the biohazard label if infectious materials are being moved. Rubbermaid or similar brand coolers or plastic boxes with tight-fitting lids may be used.
5. Primary containers shall be placed upright in the secondary container. Tube racks or other means shall be used to assist with this.
6. All packages containing infectious substances must be labeled with the contents and a name and phone number of the responsible party.
7. Biological materials shall be transported from laboratory to laboratory without any stops in public areas such as offices, cafeterias, or restrooms.
8. The receiver of transported biological materials shall be prepared to receive the materials. At a minimum, wear a lab coat, gloves, and safety goggles. The receiver shall have a plan to deal with damaged or broken primary containers. Forceps, a sharps container, and an appropriate disinfectant shall be available for decontamination and disposal of broken glass or plastic materials.

#### **Special requirements for transport in liquid nitrogen**

1. Use a plastic primary container.
2. Use a secondary container capable of withstanding very cold temperatures.