

<b>SUBJECT:</b> Laboratory Close-out Procedures	<b>Effective Date:</b> 6/14/12	<b>Procedure Number:</b> FS 2012 EHS0007	
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	<b>Responsible Authority:</b> Director of Environmental Health and Safety		

**APPLICABILITY/ACCOUNTABILITY:**

Laboratory close-out procedures are to be used in the event that University of Central Florida (UCF) laboratories will be vacated due to a Principal Investigator leaving the institution, the relocation or termination of research activities in a particular laboratory, or planning for a renovation project.

EHS will provide proper guidance for the vacating of laboratories. Principal Investigators and departments will be guided through the process of cleaning up a laboratory for clearance purposes. They will be issued a laboratory close-out clearance from EHS for those vacated laboratories found to be compliant with these guidelines.

Each department is responsible for ensuring that all Principal Investigators follow these procedures to ensure laboratory close-out clearance by EHS. Departments are ultimately responsible for the clearance of laboratory space and equipment of Principal Investigators that have left UCF.

Principal Investigator(s) are responsible for following these procedures to ensure that laboratories are left in a suitable condition for EHS to issue a laboratory close-out clearance.

Facilities Operations, Facilities Planning, and Outside Contractors must not work in laboratories that have not been cleared. Cleared laboratory equipment will have a Clearance Form, signed by EHS. (Note: The form is maintained by the EHS office.)

**PROCEDURE STATEMENT:**

Laboratories owned or operated by the University of Central Florida (UCF) must be left in a state suitable for new occupants or for renovation activities. The vacating Principal Investigator and department are responsible for ensuring the decontamination of equipment and counters, the recycling of electronics and fluorescent bulbs, and that the transfer or disposal of chemical, biological, and radioactive materials is properly completed prior to vacating the space.

## **PROCEDURES:**

Laboratory space cannot be re-occupied nor renovation work started until the space has been inspected and cleared by EHS. Once clearance is completed, the Laboratory Clearance Form will be posted in a highly visible place in the laboratory or area that has been cleared.

The vacating Principal Investigator and department must notify EHS with the Laboratory Close-out Notification document (Form A) 30 days prior to anticipated date of close-out. The vacating Principal Investigator must complete the Laboratory Closeout Checklist document (Form B) prior to the Clearance Form being issued by EHS.

### **1. Radioactive Materials (RAM)**

- Prior to close-out of a radioactive materials use area and/or a radioactive materials use permit, it is the responsibility of the department and the authorized permit holder to contact the Radiation Safety Officer (RSO) for proper lab decommissioning.
- Any unwanted radioactive materials and waste must be removed from the lab by the RSO. The RSO will assist the lab with the transfer radioactive materials to a new location.
- The RSO or assistant will perform wipe sampling to insure there is no contamination left in the lab.
- Remove all radiation signs, stickers, and tape from the lab after decontamination is complete.

### **2. Biological Waste Materials**

- Place all sharps (syringes, Pasteur pipettes, serological pipettes, razor blades, etc.) in a sharps container and place container in biohazard box.
- Dispose of all solid media and supplies in the laboratory as bio waste.
- Dispose of all other potentially biohazardous waste from the laboratory in red bags.
- Decontaminate all liquid media by autoclaving or by treating for 30 minutes with bleach solution (final concentration to be 10%) before drain disposal.
- Decontaminate all work surfaces using freshly prepared 10% bleach solution or 70% alcohol.

### **3. Biological Safety Cabinets (BSC)**

- Remove all of the contents.
- If necessary, disconnect tissue culture media vacuum flask.
- Decontaminate all accessible surfaces with an appropriate disinfectant.
- Ensure Decontamination of the BSC by a certified contractor, if a BSC is being relocated to a location outside of the building.
- Re-certify the BSC using a certified contractor when a BSC is relocated.
- If the BSC is not being moved or repair work will not open the contaminated inner space, a surface decontamination with an appropriate disinfectant is sufficient.

#### 4. **Internal Relocation of Chemicals**

Lab personnel are allowed to transport chemicals from their current laboratory to the new laboratory, if the labs are in the same building (i.e., no transporting on sidewalks and across streets). Lab personnel must contact EHS to discuss transportation procedures including cart usage, secondary containment, and proper incompatible chemical segregation. Upon relocation, the chemical inventory for the laboratory must be updated. If the lab does not wish to move the chemicals, the lab can utilize the procedure for "External Relocation of Chemicals." The lab is responsible for the costs of the outside contractor.

#### 5. **External Relocation of Chemicals**

Chemical moves to laboratories in external locations/outside buildings must be transported by a U.S. Department of Transportation approved hazardous material hauler. EHS has agreements with vendors to provide this service. However, all related chemical move costs are the responsibility of the laboratory. The vendor will prepare all paperwork necessary for the chemical move. In order to utilize these services, lab personnel are required to:

- Remove all laboratory chemicals from shelves, cabinets, etc., which require moving and place them in a central location. Label the area "Chemicals to be moved".
- Upon relocation, the chemical inventory for the laboratory must be updated.

#### 6. **Chemical Waste Disposal**

All chemical waste must be managed in accordance with the UCF Waste Disposal Procedures. At a minimum the following procedures must be used:

- Keep an appropriate hazardous waste label on all chemical waste containers. Hazardous waste labels are available free-of-charge by contacting EHS.

- Keep all chemical waste in an appropriate container and closed at all times.
- Keep an area of the laboratory or other points of waste generation designated for chemical waste only, and label utilizing Chemical Waste Satellite Accumulation Area.
- Complete the Chemical Waste Collection Request Form on the EHS website.
- For disposal of various aqueous buffers and empty containers please refer to the UCF Waste Disposal Procedures.
- Do not relocate hazardous waste containers from area of original waste generation.

#### **7. Disposal of Compressed Gas Cylinders**

Remove regulators and replace the valve stem cap. Return gas cylinders to the supplying vendor. Contact EHS for non-returnable cylinders.

#### **8. Relocating Compressed Gas Cylinders (including Liquid Nitrogen Cylinders)**

When laboratory relocations require crossing a public road, compressed gas cylinders (including Liquid Nitrogen Cylinders) must be transferred by the supplying vendor. Please call the appropriate vendor prior to relocating to arrange the move.

#### **9. Liquid Nitrogen-lined Freezers**

The vendors supplying liquid nitrogen recommend that liquid nitrogen-lined freezers be drained to a minimum level (to sustain freezing of cells) prior to relocating. Liquid nitrogen freezers are moved by the moving company and should be scheduled for refill as soon as possible at the new location by the vendor.

#### **10. Laboratory Equipment Relocation or Disposal**

The following procedures must be completed before laboratory equipment will be cleared:

- Remove all contents from laboratory equipment, e.g. chemicals, media, and glassware.
- Remove all bench coat and disposable liners/covers from equipment and dispose of properly.
- Decontaminate all surfaces of contamination prone equipment, e.g., refrigerators, freezers, incubators, water baths, biological safety cabinets and centrifuges, with an appropriate disinfectant. Contact EHS for assistance.
- Freezers which have been used for the storage of biological materials must be unplugged and defrosted.

- Incubators and water baths must be drained of all standing water, including water inside the jacket.

**11. Electronics Recycling**

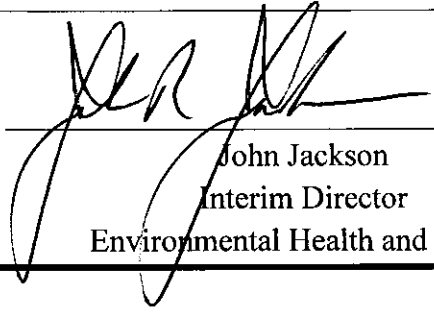
All electronics (central processing units, monitors, keyboards, printers, televisions, and scanners) must be separated from general trash and sent to surplus.

[http://www.fo.ucf.edu/warehouse/surplus/surplus\\_procedures.htm](http://www.fo.ucf.edu/warehouse/surplus/surplus_procedures.htm)

**12. General Laboratory Cleanup**

All laboratory areas must be thoroughly cleaned to assure removal of all hazardous residues. All surfaces where hazardous chemicals have been used or stored must be washed with detergent and water. This includes bench tops, cabinets, drawers, floors, etc. For furniture and other items that are to be removed from the laboratory, thoroughly decontaminate accessible surfaces to prevent harm to movers.

- Remove all bench coat and disposable liners/covers from work surfaces and dispose in properly.
- Empty and properly dispose of material from all drawers, cabinets, and fume hoods.
- Properly clean laboratory bench tops, cabinets, drawers, floors and fume hood surfaces (preferably with soap and water).

Approved By:	Date Approved:
	6/14/12
John Jackson Interim Director Environmental Health and Safety	

Form A

**Laboratory Closeout Notification**

Building: \_\_\_\_\_ Lab Number(s) : \_\_\_\_\_ Department: \_\_\_\_\_

Principal Investigator: \_\_\_\_\_ Phone #: \_\_\_\_\_

Lab or Dept. Contact: \_\_\_\_\_ Phone #: \_\_\_\_\_

Reason for Close-Out: \_\_\_\_\_

Estimated start date for close-out process: \_\_\_\_\_

Estimate completion date for close-out process: \_\_\_\_\_

Were radioactive materials used in the lab? No \_\_\_\_\_ Yes \_\_\_\_\_

Describe: \_\_\_\_\_

Were chemicals used in the lab? No \_\_\_\_\_ Yes \_\_\_\_\_

Describe: \_\_\_\_\_

What waste removal issues are present?

Mixed chemical/radioactive materials \_\_\_\_\_

Biohazardous chemical waste \_\_\_\_\_

Radioactive waste \_\_\_\_\_

Highly reactive chemicals \_\_\_\_\_

Shock sensitive materials \_\_\_\_\_

Temperature sensitive materials \_\_\_\_\_

Highly toxic compressed gases \_\_\_\_\_

Unlabeled/unknown materials \_\_\_\_\_

Signatures:

\_\_\_\_\_

Principal Investigator Date

\_\_\_\_\_

Department Administrator Date

Form B

**Laboratory Closeout Checklist**

This checklist is to guide laboratory personnel when laboratory operations are moved or discontinued. Other requirements may apply. Contact the Department of Environment, Health and Safety (EHS) 30 days prior to vacating the laboratory, room or area. For more information, call the Laboratory Safety Coordinator at 3-5498 or see <http://www.ehs.ucf.edu>

<b>Procedure</b>	<b>Date Completed</b>
<b>Chemicals</b>	
Evaluate all chemicals and label all containers	
Update online chemical inventory	
Identify unknown chemicals if possible	
Submit waste forms online at <a href="http://10.171.181.21/ehsaweb/ehsawebisapi.dll/">http://10.171.181.21/ehsaweb/ehsawebisapi.dll/</a>	
Clean laboratory surfaces	
Confirm hazardous waste has been removed	
Post completed clearance form on entry door to lab	
<b>Controlled Substances</b>	
<p>For disposal of DEA materials, please call Sue Slyker, DEA agent for UCF, at (407) 333-7081. You must schedule an appointment for him to visit your lab and dispose of the DEA material. Have your Controlled Substance Registration Certificate, and any disposal paperwork ready for inspection.</p> <p>If you do not have a Controlled Substance Registration Certificate, please call Renee Michel, EHS Coordinator at 6-7080 for disposal arrangements.</p> <p><b>Guidelines for DEA schedule substances.</b></p> <p>Controlled Substances Schedule I through V, and the Drug Codes associated with each controlled substance. <a href="http://www.deadiversion.usdoj.gov/schedules/">http://www.deadiversion.usdoj.gov/schedules/</a></p>	
<b>Gas Cylinders</b>	
Return to supplier if applicable	

For non-returnables, request cylinder disposal using the online waste form at <a href="http://10.171.181.21/ehsaweb/ehsawebisapi.dll/">http://10.171.181.21/ehsaweb/ehsawebisapi.dll/</a>	
<u>*Make sure cylinder is disconnected, valve off, and the cap is on</u>	
<b>Animal and Human Tissue</b>	
Dispose of preserved human tissue. Human tissue in preservative can be left in specimen containers. If there are many specimen containers with the same preservative, the specimen containers should be placed into a wide mouth plastic container for waste pickup. Submit waste forms online at <a href="http://10.171.181.21/ehsaweb/ehsawebisapi.dll/">http://10.171.181.21/ehsaweb/ehsawebisapi.dll/</a> . It must be indicated on the waste form " <b>tissue is non-infectious</b> ". <b>Infectious prions could be present in brain tissue preserved</b> in formalin. This tissue must be autoclaved before it can be picked up as hazardous waste.	
Dispose of preserved animal tissue. Animal tissue in preservative can be left in specimen containers. If there are many specimen containers with the same preservative, the specimen containers should be placed into a wide mouth plastic container for waste pickup. Submit waste forms online at <a href="http://10.171.181.21/ehsaweb/ehsawebisapi.dll/">http://10.171.181.21/ehsaweb/ehsawebisapi.dll/</a>	
Animal and human tissue that is not preserved must be placed in a biohazard bag and autoclaved. After autoclaving, animal tissue must be put in a biohazard box and sealed to go for incineration. Contact the Biological Safety Officer at 3-2605 for pick-up of human tissue after autoclaving.	
If cultures are being left behind in the lab list name of new person responsible for them. Transfer responsibility of samples to: _____	
<b>Microorganisms and Cultures</b>	
Autoclave waste, please contact the Biological Safety Officer at 3-2605	
Liquid materials are to be autoclaved in vented containers on the liquid cycle of the autoclave. Once cool, it can be flushed down the sink.	



<p>Users should transfer cultures to back-up incubators prior to beginning the procedures listed below.</p> <ul style="list-style-type: none"> <li>• The moving and reconnection of incubators will be done in two stages so that cultures can stay behind in back-up incubators until incubators in the new location are up and running.</li> <li>• Schedules should be made to explain in detail the timing of disconnecting/draining/reconnecting for the incubators.</li> <li>• Users will drain incubators and prepare them for moving.</li> <li>• CO2 tanks should be in place in the new building and ready for connection to incubators.</li> <li>• Users will bring water, etc. to the new building and will be responsible for refilling.</li> </ul>	
Decontaminate all laboratory surfaces with appropriate disinfectant.	
Remove all biohazard and carcinogen signage in the laboratory and on the laboratory door.	
If cultures are being left behind in the lab list name of new person responsible for them. Transfer responsibility of samples to: _____	
<b>Radioactive Materials</b>	
Prepare Radioactive waste for pick-up and use the online form found at: <a href="http://10.171.181.21/ehsaweb/ehsawebisapi.dll/">http://10.171.181.21/ehsaweb/ehsawebisapi.dll/</a>	
For all types of equipment, shielding, source containers, work surfaces etc..., do wipe tests, and attach results to the RC-14 form found online at <a href="http://www.ehs.ucf.edu/radiation/rcforms.html">http://www.ehs.ucf.edu/radiation/rcforms.html</a>	
Call Radiation Safety Officer at 3-0071 to change permit to new locale or to terminate permit.	
Exit survey of rooms and equipment is required	
<b>Laboratory Equipment</b>	
Large quantities, overflows, or confidential paper pick-ups <a href="http://www.recycling.ucf.edu/recyclables.htm">http://www.recycling.ucf.edu/recyclables.htm</a>	
Clean and defrost refrigerators/freezers	

Units for disposal that may contain refrigerants must be evaluated by Facilities Operations to determine if the refrigerant needs to be removed. If refrigerant needs to be removed, submit a work order to Facilities Operations (3-5223).	
For equipment that may be contaminated with radioactive material, decontaminate, remove warning stickers, complete a Notice of Decontamination Form, and attach it to the unit. For information, call the Radiation Safety Officer at 3-0071.	
For equipment (including refrigerators, freezers, incubators, drying ovens) that may be contaminated with chemicals or biological material, decontaminate according to manufacturer's recommendations with an appropriate disinfectant, remove warning stickers, complete a Notice of Decontamination form, and attach it to the unit prior to surplus. For information, call 3-5498 or see Decontamination Guidelines at <a href="http://www.ehs.ucf.edu">http://www.ehs.ucf.edu</a>	
When cleaning the incubators in the event of bacterial or fungal contamination, flasks and culture plates shall be moved to biological safety cabinet. Shelves shall be moved to sink for wipe down with 10% bleach solution followed by a thorough wipe down with disposable towels soaked in 70% ethanol.	
Biological Safety Cabinets must be decontaminated with formaldehyde gas before they can be moved or discarded and when it is being left in the lab for another user. If the cabinet is relocated, recertification will be required. Please call 3-2605 to schedule decontamination and recertification of cabinets.	
BSL3 laboratories must be decontaminated with formaldehyde gas when the laboratory is vacated. Please contact the Biological Safety Officer at 3-2605 for information.	
The "Surplus Property Management System"; for information on Surplus Property please contact Surplus Property at (3-5084) <a href="http://www.fo.ucf.edu/warehouse/surplus/surplus_procedures.htm">http://www.fo.ucf.edu/warehouse/surplus/surplus_procedures.htm</a>	
If you intend to discard a chemical fume hood, please contact the Laboratory Safety Coordinator at 3-5498, and complete the decontamination form and affix the form to the hood.	

<b>Sharps and Glassware Disposal</b>	
Clean out all laboratory drawers. Dispose of all sharp items (glass, pipettes, syringes, blades) in a sharps container or, if unused, transfer to another laboratory.	
For chemically or biologically contaminated sharps, use a poly sharps container, and submit for biological waste pickup. To obtain information on sharps containers please contact the Biological Safety Officer at 3-2605.	
For radioactive sharps, use plastic container or cardboard box and place in radioactive dry waste container, label them sharps, and then prepare Radioactive waste for pick-up using the online form found at: <a href="http://10.171.181.21/ehsaweb/ehsawebisapi.dll/">http://10.171.181.21/ehsaweb/ehsawebisapi.dll/</a>	
Deface labels on empty bottles then discard in normal trash or recycle.	
Other glassware that is empty, use plastic-lined cardboard glass box, then discard in normal trash.	
<b>Transportation of Hazardous Materials</b>	
All materials must be transported in secondary containment that is rigid, puncture resistant, leak proof, impervious to moisture. The secondary container must be sealed to prevent leakage and must be labeled with content (follow University Hazmat Transportation Policy).	
Carts should be used to transport materials. Do not stack materials or overcrowd the cart.	
Use indoor hallways to transport materials. Avoid busy, public corridors.	
Liquid nitrogen must be emptied from dewars before the dewars can be moved.	
If refrigerators or freezers will be moved with infectious material in them, the material in the equipment must be packed in secondary containment. The equipment must be taped or shrink wrapped shut.	