Tulane University

# LABORATORY DECOMISSIONING POLICY

Office of Environmental Health & Safety

OEHS@tulane.edu

# Laboratory Decommissioning Policy

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# Laboratory Decommissioning Policy

## 1.0 POLICY STATEMENT

It is the policy of Tulane University (Tulane) to manage materials and waste in a manner that is consistent with the regulations promulgated by federal, state, and municipal agencies. Tulane supports and strives to meet or exceed the procedures to ensure safe and compliant transitions in laboratory and/or studio occupancy.

## 2.0 PURPOSE

The purpose of this policy is to provide direction and guidance for proper laboratory closure (including relocations within campus) and decommissioning of all Tulane laboratories or other related areas.

Proper laboratory decommissioning:

- Ensures that the vacated space is in a stable and known condition, safe for individuals unfamiliar with the laboratory to enter.
- Reduces disposal costs associated with unwanted and unknown hazardous materials, and
- Encourages sustainability and cost savings through redistribution of unwanted, useable laboratory equipment and supplies.

## 3.0 APPLICATION

The guidelines and checklists provided within this document are designed to help Principal Investigators (PI)/supervisors organize and execute a safe and timely laboratory closeout.

This policy applies to all Tulane research laboratories, any auxiliary laboratory support areas, teaching laboratories, and/or art studios. It contains procedures for the management and removal of all chemical, biological, and radiological hazards prior to transition for any of the following reasons:

- The PI is leaving Tulane;
- The PI is relocating to a new space at Tulane;
- The PI is relocating to an off campus location; or
- The space is vacated for renovations.

The information provided in this policy is designed primarily with laboratories in mind but also applies to studios (e.g., fine art studios). Supervisory personnel responsible for studios and/or teaching laboratories within their unit(s) have the same responsibilities as PIs and are to follow the same procedures and forms outlined here for laboratories.

## 4.0 DEFINITIONS

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| *Abandoned chemicals* | Chemicals that are not being actively managed, inventoried, and reported or under the direct control of a Principal Investigator, supervisor, department, or unit. |
| *Acute Hazardous Waste* | Hazardous waste that contains dangerous chemicals that pose a threat to human health and the environment even when properly managed. See hazardous waste definition below. Hazardous wastes listed in accordance with the criteria in 40 CFR Section 261.11(a)(2) are designated as "acute" hazardous wastes. Acute hazardous wastes are assigned the hazard code (H) (§261.30). Specifically, a waste is classified as an acute hazardous |

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| | waste if it is any P-listed waste (§261.33) or one of the following F-listed wastes: F020, F021, F022, F023, F026, and F027 (§261.31). |
| *Biological Materials* | All human, plant and animal pathogens; all human blood, blood components and products, tissues and body fluids; all human and animal cultured cells; all infected animals and animal tissues; all cultures/stocks of biological agents including recombinant DNA materials; and all biological toxins. Also includes biomedical waste and physically dangerous (sharp) waste. |
| *Container* | Any portable device in which a material is stored, transported, disposed of, or otherwise handled. |
| *Contingency Plan* | A document of an organized, planned, and coordinated course of action to be followed in the event of fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. |
| *Decommissioning* | The process whereby a Principal Investigator, supervisor, department, or unit decontaminates/decommissions existing laboratory space and makes a laboratory safe prior to vacating the space. |
| *Decontamination* | The process whereby the Principal Investigator, supervisor, department, or unit cleans and disinfects laboratory surfaces and equipment so they are safe to handle. |
| *Generator* | Any person, by site, who produces hazardous waste or whose act first causes hazardous waste to become subject to regulation. |
| *Hazardous Materials* | Materials that can harm people, other living organisms, property, or the environment. Hazards include radioactive, flammable, explosive, reactive, toxic, corrosive, and biohazardous materials, as well as oxidizers, asphyxiants, pathogens, allergens, pesticides, and animals, which may have characteristics that render them hazardous in specific circumstances. Physical hazards include mechanical moving parts, high pressure reactions, lasers, magnetic fields, radiation, and microwaves. |
| *Hazardous Waste* | Waste that is not excluded from regulation and meets any of the following:<br>• Exhibits one or more characteristics of hazardous waste (ignitable, corrosive, reactive, toxic);<br>• Is listed under 40 CFR 261 as hazardous waste;<br>• Is a mixture of solid waste and one or more of the listed hazardous wastes in 40 CFR 261;<br>• Is disposed of through burning or incineration OR accumulated, stored, and treated prior to burning or incinerating (this does not include recycling);<br>• Is recycled in a compliant manner, burned to recover energy or to produce fuel, or accumulated speculatively. |
| *Hazardous Waste Management* | The systematic control of collecting, separating, storing, transporting, processing, treating, recovering, and disposing of hazardous waste. |

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|---|---|
| *Incompatible Waste* | A hazardous waste unsuitable for the following:<br>• Placement in a container or similar device because it may lead to corrosion or decay of containment materials (e.g., container inner liners or tank walls);<br>• Commingling with another waste or material under uncontrolled conditions which could lead to the production of heat or pressure, fire or explosion, a violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases. |
| *Laboratory* | A facility that provides controlled conditions in which scientific or technological research, experiments, and measurement may be performed. This definition also includes all storage spaces under the control of the associated laboratory. In this policy, laboratory space is also inclusive of art studios. |
| *On-site* | A geographically contiguous property that can be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection and access is gained by crossing versus going along the right of way.<br><br>Non-contiguous properties are owned by the same person, but connected by a right-of-way which the owner controls and the public cannot access. |
| *Storage* | The holding of hazardous waste for a temporary period prior to treatment, disposal, or storage elsewhere. |

**5.0 REQUIREMENTS**

Supplement, expand, or consolidate these procedures, as required, to address the specific decommissioning efforts. All work areas that generate, handle, or manage biological, hazardous, or radioactive materials and/or waste adhere to the requirements stated in this policy and all related programs as indicated.

The laboratory decommissioning process begins 90 days in advance and is organized in three stages: 1.) 90 days before vacating; 2.) 30 days before vacating; and 3.) moving day. The PI notifies their department, Tulane's Office of Environmental Health and Safety (OEHS), and any other applicable Tulane entities of any planned moves as early as possible. It is the responsibility of the PI to orchestrate the move. The PI, OEHS, and the Departmental Safety Representative (DSR) will work together to prepare a systematic plan and to set target dates to execute a safe decommissioning process. OEHS assists in the disposal of hazardous waste. If the laboratory worked with radioactive materials, OEHS's Radiation Safety Officer participates in the decommissioning planning. If the laboratory housed biological agents, it is the responsibility of the PI to notify Tulane's Office of Biosafety.

The PI or the department responsible for the laboratory being vacated assumes the costs associated with decommissioning the space which includes the cost of waste disposal, cleanup, and decontamination. If the PI and other laboratory personnel fail to properly decommission the laboratory as required, the department assumes the cost(s) of any fines imposed, if violations of closeout

procedures are discovered by regulatory agencies. Decommissioning requirements must be met before the vacated laboratory can be re-occupied.

## 6.0 RESPONSIBILITIES

In order to properly decommission laboratory spaces at Tulane, personnel act jointly with the OEHS. Specific responsibilities are identified for each appointment below:

### 6.1 Responsibilities of OEHS

- OEHS verifies that the space is free of hazardous materials and contamination. OEHS completes this verification in a timely manner, and provides a written approval to the department (for new occupancy) or Campus Services (for space to undergo construction/renovation).
- OEHS provides instructions and guidance to PIs and their staff on all laboratory moves, closures, and decontamination, including requirements for labeling and identification of research materials.
- OEHS evaluates and provides guidance for the movement of research materials (only if the materials are moved to another location on Tulane's campus).
- OEHS provides technical assistance and support regarding occupational health and safety matters relating to hazardous chemical waste management.
- OEHS assists in scheduling hazardous waste pickups with qualified vendors who properly dispose of waste at an offsite location in accordance with federal, state, and local regulations.

### 6.2 Responsibilities of PIs

- PIs contact OEHS 90 days (or as soon as possible) prior to vacating the laboratory. Notification is required even if only a single room is to be vacated, and even if the space is to be used by another PI.
- PIs are responsible for the safety of materials and equipment, including the safety and compliance of materials and equipment left behind in a vacated laboratory, even if the laboratory is to be used by another PI.
- PIs adhere to established health and safety procedures for safe and compliant disposal and decontamination of research materials. If these procedures are not followed, OEHS will arrange for the proper disposal and decontamination, as it deems necessary. The costs of these activities, including labor charges to properly segregate and label hazardous materials, will be charged directly to the PI. If the PI is unable to pay for these charges, costs will be assumed by the department under which the PI worked.
- PIs ensure that laboratory decommissioning is performed by staff who are knowledgeable of hazards and who are trained in all required safety disciplines.
- PIs inform OEHS prior to the shipment or movement of any hazardous materials or equipment that are transferred to another location on Tulane's campus.
- PIs assume costs for identification of characteristics of unknown chemicals.
- PIs assume costs associated with disposing of abandoned, unknown, or mismanaged chemicals.

- PIs remove hazardous materials from research spaces.

**6.3 Responsibilities of Department**

- The PI is responsible for the complete decommissioning of the laboratory space prior to vacating the laboratory. However, in cases where an abandoned laboratory or abandoned materials are identified, the department that the PI reported to is responsible for the decommissioning and all costs associated with the process (including the removal of all wastes) and the recertification (requires an environmental cleaning company to come in and clean all surfaces and equipment).
- The department will assume the costs of decontamination and disposal of research materials in situations where there has been a failure to meet the requirements listed in the PI Responsibilities section and those costs cannot be recovered from the PI.
- The department secures written approval from OEHS before reassigning vacated laboratory space.
- The department secures written approval from OEHS before initiating construction or renovation in vacated laboratory space.

**6.4 Responsibilities of Campus Services**

- Campus Services must ensure that vacated laboratory space is not re-occupied without prior written approval from OEHS.
- Campus Services must ensure that construction or renovation does not commence in vacated laboratory space without prior written approval from OEHS.

**6.5 Responsibilities of Employees:**

- Employees complete any assigned training.
- Employees remain knowledgeable of risks associated with management of hazardous materials, associated wastes, and emergency response procedures.

## 7.0 PROCEDURE

### A. General Guidelines

The following are general guidelines for the PI:

- Package and move laboratory items only during normal business hours.
- Arrange for heavy equipment to be transported by a vendor or Campus Services.
- Never transport hazardous materials alone.
- Wear appropriate personal protective equipment for the material being handled.
- Remove all hazardous substances and equipment from their assigned laboratory space(s).
- Properly identify and properly dispose of all wastes and materials.

### B. Decommissioning Plan

1. 90 Days Before Vacating

The PI notifies their department, OEHS, and any other applicable Tulane entities of the PI's plan to vacate the laboratory space. While waiting for a response from OEHS, the PI reviews the Laboratory/Studio Decommissioning Checklist (Appendix A; also see Section C below). OEHS accompanies the PI and the department's DSR on a tour and survey of the space to be vacated. The PI, OEHS, and the DSR develop a decommissioning plan that included target dates for critical steps in the decommissioning process.

2. 30 Days Before Vacating

The PI confirms with OEHS on the status of each item in the plan to ensure that the project is on time, to assess what has been accomplished, and to prepare for what remains to be done.
The PI surveys the laboratory to ensure that no new materials have been generated during decommissioning preparations. The PI certifies that all unknown materials have been identified.
If hazardous materials are transferred to another location on Tulane's campus, the PI reviews plans for transfer with OEHS, especially highly toxic (e.g., highly reactive, or shock sensitive chemicals, toxic gases, etc.) or infectious materials. The PI procures personal protective equipment (e.g., gloves, goggles, glasses), supplies (e.g., boxes, plastic bags, containers for broken glass, spill kits), or signage needed for moving day.

3. Moving Day

All individuals wear the appropriate personal protective equipment for the materials being handled (safety glasses, goggles, laboratory coat, gloves, closed-toe shoes, etc.). The PI have boxes, plastic bags, containers for broken glass, spill kits, and other such supplies, ready and available. Packaging and moving of laboratory items occurs during normal business hours. If the move cannot be completed within the allotted time, OEHS must be notified.

**C. Decommissioning Checklist**

The PI is to complete the Laboratory/Studio Decommissioning Checklist (Appendix A). This form will be certified by OEHS upon the completion of the decommissioning process. The duties outlined in this section are the responsibility of the PI unless otherwise specifically stated

1. Hazardous Materials

- All chemical containers are properly and clearly labeled at all times; doing so will eliminate the cost of identifying "unknown" chemicals prior to waste disposal, one of the most costly decommissioning activities. If unknown chemicals are present, segregate them for identification.
- Keep waste streams (i.e., chemicals, radioactive materials, biologicals, sharps) separate when packaging for disposal. If there is any radioactive/biological or chemical/biological mixed waste, segregate for proper disposal according to appropriate waste disposal methods. Contact OEHS for assistance.
- Facilitate sustainability and cost savings efforts by making unopened, usable chemicals or supplies available to others in the same unit, or to other units. Remind the recipient that the chemicals received must be added to their chemical inventory and reported to OEHS as part of the annual chemicals inventory update.

- Certify that the laboratory's chemical inventory is current. Identify those chemicals you wish to dispose, recycle, or reuse. Prepare a separate inventory of chemicals to be disposed and/or recycled and forward a copy to OEHS. Discuss disposal or recycling with OEHS during the initial decommissioning planning and as the decommissioning progresses.
- In preparing hazardous materials for transport for short or long distances, verify that the materials are placed in prescribed containers designed to prevent release and/or spillage. Labs may be allowed to move chemicals short distances (i.e. from building to building). A licensed commercial vendor will be required to transport chemicals longer distances. OEHS will not package nor assist with the movement of hazardous chemicals.
- Check shared laboratories, instrumentation rooms, under hoods, inside freezers, refrigerators, or cold rooms for remaining biological agents, chemicals, or radioisotopes.
- Consult Tulane's policy, Management of Hazardous Waste, for proper storage, labeling, and disposal methods of hazardous waste.

2. Radioactive Materials

- Unused, usable radioactive materials transferred to other Tulane PIs are subject to the approval of the Radiation Safety Officer. Procedures are outlined in the Tulane's Radiation Safety Manual.
- The Radiation Safety Officer shall make arrangements for the proper disposal of all radioactive materials that are not transferred.
- Discuss packaging and moving of radioactive sources with OEHS during the initial decommissioning planning and as the process progresses. Radioactive sources might require shielding for safe transport.
- Ensure that equipment has no external radiation contamination present. A radiation wipe and meter survey may need to be conducted by the Radiation Safety Officer.

3. Laboratory Equipment

- Biological safety cabinets must be decontaminated with appropriate disinfectants. Once this initial decontamination is completed, contact OEHS. Cabinets must be certified by Tulane's Office of Biosafety prior to use in the new location on Tulane's campus. If the cabinets are to remain in the original laboratory, the cabinets are properly decontaminated before the laboratory is vacated. Contact the Office of Biosafety for assistance with the decontamination and removal of biological safety cabinets.
- Chemical fume hoods are inspected by OEHS for explosive perchlorate/nitrate crystals. If perchlorate crystals/nitrate crystals are found, the hood/ducts will need to be washed by a vendor. Contact Campus Services to schedule a vendor to wash the hoods. OEHS will retest the hood until no further contamination is observed.
- Fume hoods that will remain in the original laboratory must be appropriately cleaned/decontaminated by the PI before the laboratory is vacated.
- Old and/or broken equipment is decontaminated. The PI completes the Equipment Transfer Certification (Appendix B) and submits the form to OEHS. OEHS certifies the equipment for disposal. The PI contacts Campus Services for disposal of the equipment.
- The PI decontaminates all equipment that contains radioactive, chemical, and/or biohazardous materials before the laboratory is vacated.

- Discuss any equipment that contains hazardous materials with OEHS to ensure proper disposal of the materials prior to moving the equipment.

4. Biological Materials

- Defer to the Office of Biosafety for proper disposal of biological materials.
- Properly dispose of biological wastes. Autoclaving may be necessary for certain agents.
- Make available any unopened, unused, usable sharps and/or biological agents to others in the unit or to other units. Select biological agents may require special precautions. Contact the Tulane Office of Biosafety for more information.
- Appropriate shipping containers, secondary containment, biohazard labeling, and personal protective equipment must be used when transporting biological materials.

5. Animal Handling

Defer to Tulane's Office of Research.

6. Controlled Substances/Drugs.

Registrants leaving Tulane are required to notify Louisiana Board of Pharmacy (LABP) and Drug Enforcement Agency (DEA) of the change in location. Tulane will not notify the LABP and DEA on behalf of the Registrant. Disposal of a Registrant's current inventory of Controlled Substances on hand must be completed prior to the Registrant's departure from Tulane. Please visit the DEA website, the State Board of Pharmacy website, and the Tulane OEHS website for more information. Review Tulane's policy, Use Of Controlled Substances In Animal Research And Bench Research Tulane University.

7. Sharps

Properly dispose of all needles and syringes (used or unused) in appropriate sharps containers.

8. Universal Waste

Properly segregate, store, and label universal waste. Review Tulane's policy, Management of Universal Waste.

9. Gas Cylinders

Compressed gas cylinders and cryogenic gas cylinders are returned to the gas distributor. Preparation for return includes removing gas connections and replacing cylinder caps.

10. Asbestos Containing Materials (ACM)

Material identified as ACM are disposed of through OEHS. These materials includes cementitious laboratory/table tops, woven heat protection equipment (gloves, hot pads, etc.), older laboratory fume hoods (cementitious panels inside), and ovens. Review Tulane's Asbestos Management Policy.

11. General Housekeeping

- Remove all trash from the space including empty containers, papers, and disposable materials. Remove all laboratory matting, absorbents or chucks from all benches and cabinets and empty all drawers. Non-hazardous materials are disposed of as general waste.
- Remove all hazard identification signs and labels.
- Dispose of uncontaminated broken glass or unwanted glassware in a glass waste box with a clear plastic liner. Contact Facilities Services to remove the broken glass boxes.

## 8.0 REGULATED AREAS

Ensure that regulated areas are in compliance with all federal and state regulations and Tulane policies.

## 9.0 COMPLIANCE METHODS

Ensure proper actions are taken to remain in compliance with federal, state, and local regulatory requirements as well as with the responsibilities and regulated areas identified in this policy.

## 10.0 EMERGENCIES

Accidents involving hazardous or chemical wastes require immediate action to prevent fire, explosion, injury, or death. It is imperative that all personnel handling these materials be well informed and trained on the appropriate response methods.

### 10.1 Chemical Spills

A. Emergency response procedures identified in Standard Operating Procedures (SOPs) or Job Hazard Analyses (JHAs) are to be carefully followed. Research/departmental leaders shall prepare SOP or JHAs for each task that occurs in a work area. These site or task-specific procedures must include methods for handling accidents or spills and ensure the following have been completed:
   - Laboratory personnel are familiar with the chemical, physical, and toxicological properties of each hazardous substance in the laboratory.
   - Safety Data Sheets have been gathered and consulted prior to the initial use of the hazardous substance.
   - Laboratory personnel are always using the minimal amount of the hazardous chemical so as to minimize generation of waste.
   - Laboratory personnel are familiar with emergency response guidelines outlined in SOP or JHA.

B. Employees are equipped to address incidental spills of hazardous chemical wastes in small quantities, such as a 4-liter container or smaller. Larger spills may require specific materials, personal protective equipment, and special handling to protect human health.

C. Responsible individuals remove unnecessary personnel from the spill area and attend to injured or contaminated persons using emergency eyewash and shower.

D. If possible, turn off ignition sources and confine the spill to prevent spread or further contamination (upright spilled container, close doors, pull down sash of hood, etc.).

E. Responsible individuals standby in an uncontaminated area to provide information and assistance to emergency responders.

F. Always contact Tulane Police Department and OEHS for assistance with spills. All laboratory workers must be aware of this procedure.

### 10.2 Medical Emergencies

In the event of a personal injury or illness involving a hazardous chemical, consult the SOP, JHA, and/or Safety Data Sheet (SDS). If appropriate, immediately wash the exposed area for at least 15 minutes using the nearest eyewash or emergency shower. Seek assistance and obtain medical attention. If possible, provide a list of SDSs to the attending physician. Complete a First Report of Injury and submit it to Worker's Compensation in Human Resources (See Injury/Illness Policy).

Refer to Tulane's Needlestick & Sharp Object Injury Report in the event of an injury involving needles or sharp objects. For emergencies related to bloodborne pathogens, refer to Tulane's Bloodborne Pathogens Exposure Control Plan.

## 11.0 RECORDS

If materials (not wastes) are moved to another facility, it is the responsibility of the PI to maintain the records.

Required waste records are dependent upon the type of materials that are disposed. Consult the appropriate policy to determine which records are the responsibility of Tulane and which records are the responsibility of the PI.

## 12.0 REFERENCED OEHS POLICIES

- Asbestos Management
- Bloodborne Pathogens Exposure Control Plan
- Injury/Illness Policy
- Management of Hazardous Waste
- Management of Universal Waste
- Radiation Safety
- Use Of Controlled Substances In Animal Research And Bench Research Tulane University

## 13.0 REFERENCED FORMS

APPENDIX A – Laboratory/Studio Decommissioning Checklist
APPENDIX B – Equipment Transfer Certification

## 14.0 REVISION HISTORY

| Revision No. | Effective Date | Responsible Department | Description of Revision | Approved by |
|---|---|---|---|---|
| 0 | Draft | OEHS | Initial Version (still in draft) | NA |

## APPENDIX A – Laboratory/Studio Decommissioning Checklist

This checklist is designed to guide laboratory personnel safely through decommissioning procedures in the event that laboratory operations are moved or discontinued. In addition to the items in the checklist, please also consider the following:

- Review this form 90 days prior to vacating the laboratory, room, or area. This form will be certified by Tulane's Office of Environmental, Health & Safety (OEHS) upon the completion of the decommissioning process.
- Use appropriate personal protective equipment when cleaning, during decontamination, when handling hazardous materials, and when handling waste.
- Ensure that hazardous materials and their locations remain secure. Movers must be trustworthy and reliable. Do not leave hazardous materials unattended or unsecured in hallways, loading areas, and vehicles.
- Be sure to clean and decontaminate areas outside the lab such as coldrooms, hallway freezers, and common storage areas. If these areas will no longer be used, remove all materials, including chemicals and biologicals.

| **Procedure** | **Date Completed** |
|---|---|
| **Gas Cylinders** | |
| Remove regulators and manifolds. Cap all cylinders and bottles. | |
| Return cylinders to gas distributor. | |
| Contact OEHS for assistance with disposal of non-returnable bottles. | |
| **Controlled Substances** | |
| Contact Louisiana Board of Pharmacy and Drug Enforcement Agency to close or change location of the Controlled Substances Permit. | |
| Properly dispose of controlled substances. | |
| **Other Chemicals** | |
| Label all containers. | |
| Evaluate and sort chemicals into categories: move, redistribute to others, research materials to preserve, unknowns, and waste. | |
| Contact OEHS officer for guidance on proper packaging and shipping of chemicals. | |
| Redistribute usable chemicals to stockrooms and other laboratories. | |
| Follow organizational procedures for proprietary samples and research materials to preserve. | |
| Update chemical inventory records to reflect the disposal or new locations of laboratory chemicals. | |
| Clean and decontaminate benchtops, furniture, other surfaces, laboratory hoods, storage cabinets, and other fixed equipment. Remove warning stickers. Attach clearance statements to equipment, spaces, etc. | |
| If mercury may have been spilled in the laboratory's history, verify decontamination with a portable atomic absorption spectrometer with a mercury vapor sensitivity of 2 $ng/m^3$. | |
| **Last step:** Inspect all lab spaces to verify the removal of all chemicals. Be | |

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| sure to check all drawers, cabinets, cupboards, refrigerators, etc. | |
| **Microorganisms, Cultures and rDNA** | |
| Contact the Tulane's Office of Biosafety. | |
| Adhere to the requirements of Tulane's Office of Biosafety. | |
| **Animal and Human Tissue** | |
| Contact Tulane's Office of Research. | |
| **Radioactive Materials** | |
| Contact the Tulane's Radiation Safety Officer. | |
| Adhere to the requirements of Tulane's Radiation Safety Officer. | |
| **Sharps**<br>Sharps include needles, syringes with or without needles, Pasteur pipettes, pipette tips, and broken glass. | |
| Keep separate sharps that are radioactive, biologically contaminated, and chemically contaminated. Properly dispose of sharps. | |
| **Moveable Laboratory Equipment**<br>Decontaminate movable lab equipment that is to be left in place, moved, sold as surplus, or disposed of. | |
| Units that may contain refrigerants must be evaluated by Campus Services to determine if refrigerant needs to be removed. If so, arrange for removal. | |
| For refrigerators, freezers, and other movable equipment that may be contaminated with chemicals, clean, decontaminate, remove warning stickers. The PI completes the Equipment Transfer Certification (Appendix B) and submits the form to OEHS. OEHS certifies the equipment for disposal. The PI contacts Campus Services for disposal of the equipment. | |
| Biological safety cabinets must be decontaminated with appropriate disinfectants. Once this initial decontamination is completed, contact OEHS. Cabinets must be certified by Tulane's Office of Biosafety prior to use in the new location on Tulane's campus. If the cabinets are to remain in the original laboratory, the cabinets are properly decontaminated before the laboratory is vacated. Contact the Office of Biosafety for assistance with the decontamination and removal of biological safety cabinets. | |
| Chemical fume hoods are inspected by OEHS for explosive perchlorate/nitrate crystals. If perchlorate crystals/nitrate crystals are found, the hood/ducts will need to be washed by a vendor. Contact Campus Services to schedule a vendor to wash the hoods. OEHS will be retest the hood until no further contamination is observed. | |
| Fume hoods that will remain in the original laboratory must be appropriately cleaned/decontaminated by the PI before the laboratory is vacated. | |
| The PI decontaminates all equipment that contains radioactive, chemical, and/or biohazardous materials before the laboratory is vacated. | |
| Discuss any equipment that contains hazardous materials with OEHS to ensure proper disposal of the materials prior to moving the equipment. | |
| **Other** | |
| Dispose of used gloves, aprons, goggles, etc. according to organizational procedures. | |

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| Pack all files, documentation, books, and publications. Follow organizational procedures for archiving research notebooks and supporting documentation. | |
| Update emergency information, including external door posting, contact lists, plans, etc. | |
| Follow organizational security procedures for removing laboratory access. | |

Principal Investigator/Faculty Member in Charge

Date

Forwarding Email Address

Forwarding Telephone Number

**FINAL INSPECTION CERTIFICATION**

I hereby certify that the above laboratory (studio) has been inspected and is ready for renovation/occupancy.

OEHS Representative

Date

Appendix B

# EQUIPMENT TRANSFER CERTIFICATION

| | |
|---|---|
| Requestor: | E-mail: |
| Phone: | Department: |
| Today's Date: | Scheduled Move Date: |
| Alternate Contact: | E-mail: |
| PI/ Supervisor: | DSR: |

Use this checklist to prepare for equipment transfer and disposal.

| | | |
|---|---|---|
| 1. | Remove all biological materials and sharps. | #1 |
| 2. | Remove all chemicals. | #2 |
| 3. | Remove all radioactive materials. (contact RSO) | #3 |
| 4. | Remove lead shielding. | #4 |
| 5. | Contact Biological Safety for BSC decontamination. | #5 |
| 6. | Contact OEHS to test chemical fume hoods. | #6 |
| 7. | Perform contamination surveys on equipment used with radioactive materials. | #7 |
| 8. | Clean and/ or disinfect equipment surfaces used with biological material or hazardous chemicals. | #8 |
| 9. | Remove all hazard labels and symbols. (biohazard, radiation, etc.) | #9 |

OEHS Representative: _____ Date Sticker Issued: _____

| **EQUIPMENT DESCRIPTION** (e.g., REVCO -20 freezer, Kenmore refrigerator, etc.) | **DECONTAMINATION OR CLEANING METHOD(S)** (e.g., 10% bleach, 70% ethanol, autoclave) | **MOVING INFORMATION** | | **OEHS LOG #** |
|---|---|---|---|---|
| | | **FROM: Bldg./Rm.** | **TO: Bldg./Rm. or Disposal** | |
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# EQUIPMENT TRANSFER CERTIFICATION

| **EQUIPMENT DESCRIPTION** (e.g., REVCO -20 freezer, Kenmore refrigerator, etc.) | **DECONTAMINATION OR CLEANING METHOD(S)** (e.g., 10% bleach, 70% ethanol, autoclave) | **MOVING INFORMATION** | | **OEHS LOG #** |
|---|---|---|---|---|
| | | **FROM: Bldg./Rm.** | **TO: Bldg./Rm. or Disposal** | |
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Comments:

***To submit this form, save a copy to your computer. Once completed, send the form as an email attachment with "Equipment Transfer Request" in the subject line. Email to OEHS@tulane.edu.***