INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS
LABORATORY SAFETY POLICY

Subject: Policy for the Decommissioning or Relocation of Laboratories
Effective Date:
Approved: Laboratory Safety Committee
Policy: 125

PURPOSE AND BACKGROUND:

This policy has been created to ensure the proper decommissioning or relocation of laboratories on campus in order to minimize hazards to University employees, to maintain compliance with all applicable federal, state and local regulations, and to promote environmental stewardship. This is not a policy for radiological decommissioning of laboratories which must be performed by the IUPUI Radiation Safety Department.

SCOPE:

The program applies to all University research laboratories and any auxiliary laboratory support areas. The program lists the requirements for the removal of all chemical, physical, biological, and radiological hazards associated with research from the aforementioned spaces when the area is being vacated for any of the following reasons:

- The principal investigator is leaving IUPUI;
- The principal investigator is relocating to a new laboratory at IUPUI;
- The space is being vacated for renovations; or
- The space is scheduled for demolition.

POLICY:

Authority and Responsibility

Environmental Health and Safety is responsible for:

1. Developing and implementing a Laboratory Decommissioning and Relocation Policy;
2. Conducting post-inspections of the space to ensure the area is free of recognized hazards;

Laboratory Directors or Principal Investigators are responsible for:

1. Notifying Environmental Health and Safety 30 days before vacating the space;
2. Complying with all aspects of the Laboratory Decommissioning and Relocation Policy;
3. Providing the arrangements for the relocation or disposal of hazardous materials;
4. Notifying EHS after all activities have occurred for a final inspection of the area.

Departments are responsible for:

1. Ensuring that the principal investigator complies with the procedures in this policy;
2. Assuming the responsibilities of the Laboratory Director or Principal Investigator if the area is a shared space such as a cold room or teaching lab.
3. Procuring the cost of the relocation or disposal of hazardous materials if the principal investigator vacates the laboratory without complying with this policy

Notification

Environmental Health and Safety shall be notified at least 30 days prior to vacating the laboratory and any laboratory support areas and before commencing any evacuating activities. Environmental Health and Safety will conduct a pre-inspection of the space with the principal investigator to identify all chemical, physical, biological and radiological hazards within the space. If any radiological hazards are identified or are suspected to be associated with the space, the Radiation Safety Office shall also be notified at 274-4797 by the laboratory director or principal investigator.

If a vacated laboratory or auxiliary laboratory support area is being occupied by a new principal investigator, it is the responsibility of the new principal investigator to ensure the space is free of recognized hazards prior to occupying the space. Environmental Health and Safety shall be contacted for assistance. If a vacated laboratory or laboratory support area has not been decommissioned properly, and becomes occupied, all materials found within the laboratory shall become the responsibility of the new principal investigator.

General Housekeeping

All general refuse shall be removed from the space including empty containers, papers, and disposable materials. All non-hazardous materials may be disposed of as general waste. All surfaces, including bench tops and fume hoods shall be washed down with warm, soapy water after all garbage and debris has been removed.

Any broken glass or unwanted glassware shall be disposed of in a cardboard box or other rigid, puncture-resistant containers designated for glass. The container shall taped shut at which point it can be removed from the space by building services.

Any sharps such as needles or razor blades shall be disposed of in an approved sharps-container and shall be removed from the space. The sharps container must be autoclaved prior to disposal if they are contaminated with biological materials.

Chemical Hazards

All chemical waste shall be removed from the space prior to vacating the space. Ensure that all containers of chemicals are securely closed and labeled with the name of the chemical. Chemical wastes are collected for disposal, not sewered or placed in the trash. Follow all IUPUI waste disposal guidelines.

All refrigerators, freezers, fume hoods, bench tops and storage cabinets must be checked for chemical containers.

Disposal of hazardous chemicals into sinks, drains, commodes or other sewage disposal channels is **STRICTLY PROHIBITED**. Empty containers may be disposed of as general waste.

Usable chemicals are transferred to another party who is willing to assume responsibility for them. If a new user cannot be found, the materials are disposed through the EHS hazardous waste program.

Detailed instructions for chemical disposal are available in the IUPUI Waste Disposal Guidelines. 30 days advance notice is required for 50 containers or more. Chemical pickup should be completed before the laboratory is vacated. Waste collection will take at least a week after notification that waste is ready for pickup.

Check chemical containers for expiration dates and signs of damage, corrosion or crystallization. Any expired chemicals or any chemical containers exhibiting damage, corrosion or crystallization shall be disposed of as chemical waste and shall not be relocated to a new location.

Any peroxide-forming materials within the space shall be disposed of as chemical waste and shall not be relocated to a new location if the container has been opened and is more than six months old, or if it has not been opened and is more than one year old. Dried containers of picric acid or picrates shall not be moved and shall be disposed of as hazardous waste. Environmental Health and Safety (EHS) shall be notified if perchloric acid has been use within the space or in a fume hood so that the space may be tested for perchlorates.

Hazardous chemicals that will be relocated to a new space on campus shall be packaged and transported by the University's hazardous materials contractor or transported by laboratory personnel if approved by EHS according to IUPUI Chemical Move Guidelines. All chemicals shall be moved during normal business hours (8:00 a.m. and 4:30 p.m. Monday through Friday) so that in the event of an accident or spill, EHS can easily respond. Equipment and other, non-hazardous materials may be moved after hours or on the weekends. Laboratory personnel shall be present at the time that chemicals will be relocated to the new space.

When transporting chemicals, refer to the IUPUI **Chemical Move Guidelines**.

Controlled Substances

Controlled substance permits are issued by the US Drug Enforcement Agency (DEA) and are issued to individual researchers. There is no central record of permit holders.

Abandonment of a controlled substance is a violation of the DEA permit under which it was held.

Permission to transfer ownership of a controlled substance to another individual must be received from DEA.

EHS is notified if controlled substances for which the licensee is unknown are found.

Physical Hazards

All recognized physical hazards that exist within the space that are not considered to be a part of the space shall be removed prior to vacating the space. Such hazards include, but are not limited to: items, objects or equipment that may cause slips, trips, falls, heat stress, cold stress, high noise, vibrations, and any bodily harm or damage. All laboratory specific research apparatus must be dismantled, decontaminated and removed from the space.

Refrigerators, Freezers and Equipment

Refrigerators shall be emptied and contents segregated into hazard classes before removing from the space. A cooler with dry ice may be used to move items that must be refrigerated. Freezers may be removed with the contents inside as long as they do not contain breakable containers, are labeled as to what is inside the freezer, and are locked and securely strapped shut.

All laboratory equipment contaminated or potentially contaminated with chemicals or biological materials shall be decontaminated before removal from the space. Equipment shall have chemicals safely removed, drained or discharged from the equipment.

Biological materials shall be removed from the equipment. Disinfect surfaces that may be contaminated with biological agents by cleaning with a bleach and water solution consisting of one part of bleach to ten (1:10) parts of water. As a final step, wipe equipment down with a 70% alcohol solution.

This equipment includes, but is not limited to:

- Centrifuges;
- Glassware;
- Plastic ware;
- Glove boxes;
- Flammable cabinets;
- Corrosive cabinets;
- Water baths;
- Refrigerators;
- Ovens;
- Microfuges;
- Incubators;
- Microwave ovens;
- Shakers;
- Vacuum pumps;
- Compressors.

If typical decontamination procedures may damage the equipment or cause a safety issue, please refer to the manufacturer's recommendations for decontamination of the equipment.

Laboratory equipment to be left for the next occupant is cleaned, decontaminated, and tagged before the laboratory is vacated.

Compressed Gasses

Compressed gas cylinders and dewars shall be properly secured and capped when they are transported. Cylinders shall be transported in an upright position in an approved cylinder cart. Never move a cylinder by rolling it across the floor. Do not leave a cylinder unattended in the corridor. Never drop cylinders or bang them against each other or another object. Empty cylinders shall be labeled "empty".

Cylinders shall be disconnected, their caps replaced and the cylinders returned to suppliers or relocated.

Non-returnable cylinders (i.e., lecture bottles) are manifested and packed as chemical waste.

Biological Hazards

All biohazardous materials (materials containing or previously containing microorganisms, toxins, and allergens derived from those organisms, plants and animals) shall be removed from the space.

If the space is a BL2 lab or higher, the Biological Safety Manager shall also be notified at 274-2830 by the laboratory director, principal investigator or department representative.

Clean all surfaces that may be contaminated with biological agents with warm, soapy water. Disinfect surfaces that may be contaminated with biological agents with a bleach and water solution consisting of one part of bleach to ten (1:10) parts of water. As a final step, wipe surfaces down with a 70% alcohol solution.

Autoclave all potentially infectious waste and dispose of according to the procedures for your biosafety level and remove all media and supplies from drawers, shelves, and cabinets.

Biological Safety Cabinets require professional decontamination prior to removing and require re-certification if it is being relocated.

Radiological Hazards

If any radiological hazards are identified or are suspected to be associated with the space, the Radiation Safety Office shall be notified at 274-4797 by the laboratory director, principal investigator or department representative.

Miscellaneous Hazards

Certain laboratory equipment and apparatuses may contain materials or chemicals which are potentially harmful to human health or the environment. These may include:

- Asbestos (e.g., autoclaves, ovens, gloves, curtains, hot plates);
- Mercury (e.g., manometers, thermometers, barometers, silent switches);
- PCB's (e.g., batteries, batteries supplies, high voltage systems, capacitors, pump oils);
- Acids (e.g., batteries); and
- Solvents (e.g., degreasing equipment).

Notify EHS if you have knowledge or suspect equipment to have any of these materials.

Chemical Emergencies

The IUPUI Emergency Dispatch shall be notified immediately upon an emergency incident by dialing 911 from a campus phone or 274-7911 from a non-campus phone.

Refer to the IUPUI Emergency Procedures flipchart for instructions on how to respond to a chemical spill. If a chemical spill occurs, contact the IUPUI Emergency Dispatch immediately by dialing 911 from a campus phone or 274-7911 from a non-campus phone.

NONCOMPLIANCE/PENALTIES:

The Department of Environmental Health and Safety may, at its discretion, refer costs incurred from the disposal of wastes generated by actions contrary to the principles of this policy back to the producing or generating department.

Staff, faculty, students and guests of the University whose willful actions violate existing federal and state regulation may be held criminally and civilly liable for their actions.

In the event the University is cited and fined by federal, state or local regulatory agencies for actions or activities contrary to applicable regulations, the department(s) involved in the citation may be accountable for payment of the issued fine.

In addition, the University may initiate disciplinary actions, up to and including dismissal, against any staff or faculty found to be in violation of this policy.

PROGRAM OVERSIGHT AND EMPLOYEE ASSISTANCE:

The Department of Environmental Health and Safety will serve as a technical resource for the implementation of this program. The Department will also serve to oversee the development and implementation of mercury educational materials as needed.