

OCCUPATIONAL & ENVIRONMENTAL SAFETY SERVICES

Title: Laboratory Facilities Release	Document No.: Campus 02-101 Revision No.: 1
Nature of Change: New Format	

1.0 Purpose: The purpose of this document is to prescribe procedures to be followed to safely and legally deactivate and release to unrestricted use, or transfer responsibility for laboratory facilities, which may potentially be contaminated by hazardous chemical, radiological, or biological materials. Adherence to this procedure will ensure that employees, students, and members of the public are not needlessly exposed to potentially dangerous materials, and that all regulated materials are disposed of properly.

2.0 Scope:

- 2.1 This procedure applies to all laboratory facilities where radiological, hazardous chemical or biologically hazardous materials are used, created, or stored. This may include but is not limited to laboratories, large environmental chambers, coolers, walk in freezers, storage facilities, and large fixed location equipment. This procedure applies to facilities owned by, leased by, or similarly occupied by the university.
- 2.2 This procedure applies whenever the Principal Investigator for a laboratory vacates a laboratory due to retirement, reassignment, resignation, transfer, relocation, or similar reasons. This procedure also applies when a lab space or significant portions thereof are temporarily vacated for the purpose of remodeling or renovation of the space.

3.0 Responsibilities:

- 3.1 Deans, Directors, and Department Chairs – will ensure that all Faculty and Principal Investigators receive a copy of this procedure, are instructed that it is necessary to comply with the terms of this procedure, and will ensure that this procedure is followed.
- 3.2 Faculty and Principal Investigators – will ensure that all laboratory personnel have access to a copy of this procedure, that the procedure is followed, that any unusual problems are referred to Occupational and Environmental Safety (OES) Services for discussion and resolution.
- 3.3 Laboratory Staff and Students – will follow this procedure, and will refer any problems or questions to their supervisor.
- 3.4 Occupational and Environmental Safety Services – will provide consultative support, will assist in managing unusual or special problems, and will authorize any necessary deviations from this procedure.

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4.0 Definitions:

- 4.1 Employees: University at Buffalo Facilities employees
- 4.2 Equipment: Any laboratory equipment used for research or storage of research materials, including but not limited to fume hoods, autoclaves, centrifuges, refrigerators, freezers, incubators, etc.
- 4.3 Materials: Hazardous, radiological, or biological materials
- 4.4 OES: Occupational and Environmental Safety Services
- 4.5 Safe or Safety: Having no exposure to potentially dangerous concentrations of materials

5.0 Procedures: Implement the “Checklist for Release Certification of Laboratories Containing Hazardous Chemicals and Biological Agents or Materials of Biological Origin” (see Exhibit 1) and the “Checklist for Moving Radioisotope Laboratories” (see Exhibit 2)

- 5.1 Equipment Release - All potentially and known contaminated equipment shall be cleaned and released in accordance with the University at Buffalo Laboratory Equipment Release Procedure.
- 5.2 Material Removal –
 - 5.2.1 All hazardous chemical, radiological, or bio-hazardous materials shall be removed from the laboratory. Materials may be either disposed of in accordance with established procedure, or transferred to another laboratory or facility in a manner mutually agreed upon by the PI and OES.
 - 5.2.2 Chemicals designated for disposal shall be disposed of in accordance with the Chemical Waste Management Guide or Laboratory Waste.
 - 5.2.3 OES staff, in accordance with established procedures, will pick up radiological materials designated for disposal.
 - 5.2.4 Bio-hazardous materials will be disposed of as regulated medical waste in accordance with established procedures. These materials may first be treated by chemical or high temperature methods to reduce risk prior to disposal as regulated waste.
 - 5.2.5 Some materials require support by trained specialists, such as the removal of internal radioactive sources from liquid scintillation counters. The department or principal investigator shall make arrangements with the counter manufacturer for the proper removal and disposal of the sources. All such work must be documented.
- 5.3 Decontamination –
 - 5.3.1 All hazardous chemical, radiological, or bio-hazardous materials shall be removed from facility surfaces before release of the facilities. Decontamination shall be performed as outlined herein:

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Radiological Materials – radioactive contamination shall be removed by standard radiological decontamination methods. The maximum level of residual radioactivity shall be as determined by OES policy, or by Chapter 1, Part 16 of the State Sanitary Code, whichever is more limiting. A documented “close out survey” shall be conducted by OES. Surveys will be performed by the Principal Investigator to demonstrate that decontamination limit has been achieved. These surveys shall be documented, and records shall be available for review by OES or by the Department of Health. The Principal Investigator shall notify OES of the impending close out. The area will then be posted in accordance with OES policies. All waste generated in the course of decontamination shall be disposed of as radioactive waste. After the close out survey is completed radioactive labels and stickers shall be removed or defaced.

Chemical Residues – shall be removed, neutralized, or otherwise rendered non-hazardous using an appropriate method determined by the chemical and physical characteristics of the contaminant(s), and the physical nature of the facilities surfaces. Hazard labels shall be removed or defaced as appropriate. The decontamination method shall be documented, and records shall be available for inspection by OES. Any incidental wastes shall be disposed of properly.

Bio-hazardous Contaminants - shall be removed or rendered non-pathological. Typically this will be accomplished using a bleach solution or other chemical means. Hazard labels shall be removed or defaced as appropriate. The decontamination method shall be documented, and records shall be available for inspection by OES. Any incidental wastes shall be disposed of properly as regulated medical waste.

5.4 Certification and Labeling - Upon completion of Material Removal and Decontamination the Principal Investigator (or other authorized individual as designated in writing), shall affix a Facilities release certification poster to the outside of all laboratory doors (see Exhibit 3). All sections of the poster shall be completed with all pertinent information or “NA” as appropriate. A copy of the poster shall be forwarded to OES. The posting shall remain in place for 30 days.

5.5 Alternative Approach – Transfer of Responsibility –

5.5.1 In some situations, a complete decontamination of the facility may not be appropriate. This would most often apply when a lab is being vacated, but not rehabilitated, and the subsequent occupant will utilize the laboratory for similar purposes.

5.5.2 In such cases full decontamination is not required, however, the following alternative requirements must be met:

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- The “outgoing” PI will provide OES and the “incoming” PI with a complete inventory of any residual chemicals or biological materials.
- The incoming PI will acknowledge in writing that he or she accepts full responsibility for the safekeeping and ultimate disposal of these materials. Any materials not accepted will remain the responsibility of the “outgoing” PI for proper disposition.
- The outgoing PI will leave the facility in a state of good housekeeping, and will remove any contamination potentially injurious to future occupants.
- The “outgoing” PI will inform the “incoming” PI and OES, in writing of any special safety considerations – such as spills that may have left contamination in inaccessible areas within the lab (under flooring or carpeting, behind benches, etc.).
- The department chairs of the “incoming” and “outgoing” departments will notify OES in writing that they approve of the transfer of responsibility.

- 5.6 Inherently Waste-like Materials - Indefinite storage is not an alternative to proper disposal of hazardous materials. Unused and outdated chemicals, and any hazardous materials not clearly and legitimately identified for use in the future is considered “inherently waste-like”. Regulations require that these materials be promptly disposed of as hazardous waste.
- 5.7 Special Problems - All special or unusual problems will be referred to OES for resolution. Any deviation from the requirements set forth in this procedure must be approved in writing by OES.

6.0 Document Management: This procedure shall be reviewed once every two years, or as changes require.

7.0 Associated Documents:

- 7.1 “Campus Commitment to Safety,” University at Buffalo, Office of the Provost, Office of the Senior Vice President, April 3, 2001.
- 7.2 Radiation Protection Services “Radioactive Materials Safety Manual”.
- 7.3 Chapter 1, Part 16 of the State Sanitary Code (NYCRR Title 10).
- 7.4 SUNY at Buffalo “Chemical Waste Management Guide”

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8.0 Document Revision History:

Revision: 1 Date of Last Revision: 4-17-02 Due for Review: 4-17-04

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9.0 Reason for Change:

Revision	Sec./Para. Changed	Change Made:	Date
1		New document format for procedures	4-17-02

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EXHIBIT 1

Checklist for Release Certification of Laboratories Containing Hazardous Chemicals and Biological Agents or Materials of Biological Origin

In order to comply with applicable federal and state regulations, your laboratory must be decontaminated prior to your move to make it ready for the next occupant. Please implement the checklist below and prepare your laboratory prior to the move.

Chemical and Biological Materials Inventory: Plan *on stopping all laboratory work 1 week prior to your move. This will give you time to perform all necessary decontamination and inventory procedures.*

- ___ A) Review your chemical and biological materials inventories (including contents inside refrigerators and freezers) and see what can be disposed of (check for items which might have significant chemical degradation). Process disposal paperwork and have wastes removed by OES (829-2401). Follow your department's procedures for disposing of Regulated Medical Waste for biological/medical wastes.

- ___ B) Empty or full chemical containers that are saved must be checked for and cleaned of external contamination. If the saved materials are to be transported over roadways, contact OES for information on the US Department of Transportation regulations for packaging and labeling items to be shipped. If you need to borrow totes to transport chemicals for an internal move, contact OES.

- ___ C) All chemical and biological samples in beakers, flasks, test tubes, culture dishes, vials, etc. (liquid or solid) must be labeled with the chemical or agent name (symbols are acceptable if name is uncommon or very lengthy), preparer's name, and hazard information, if known. **Any agents, toxins or other materials currently on the CDC/NIH Select Agent List must be handled according to strict transfer rules with appropriate documentation. Please contact OES for the agent list and guidance in handling these items.**

- ___ D) All hazardous chemicals and biological materials must be removed from all laboratory surfaces (benches, shelves, cabinets, hoods, etc.) prior to moving from the laboratory. In addition, chemical residues, stains, deposits, etc. on all laboratory surfaces must be removed, neutralized, or otherwise rendered non-hazardous to human health or the environment using appropriate chemical and physical methods.

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- E) Decontaminate all internal and external surfaces with appropriate solutions that are known to kill the organisms that may be present and/or inactivate the hazardous substances of biological origin.
- F) If decontaminating agents may leave a corrosive or otherwise harmful residue, the surfaces must be rinsed clean of hazardous contaminants.
- G) Research Equipment (hoods, refrigerators, freezers, analytical instrumentation, centrifuge, etc.): Complete Equipment Release checklist and affix Equipment Release form to each piece of equipment in the laboratory.
- H) Hazard labels must be removed or defaced when the respective hazards have been removed from equipment.
- I) Final Lab Survey - After all items are packed, do a thorough lab survey of benches, hoods, floors, shelves, waste areas, equipment, etc. Decontaminate all surfaces before movers arrive. Hazard labels on the exterior door must be removed or defaced when the respective hazards have been eliminated from the laboratory.
- J) Affix a signed and dated Laboratory Facility Release Certification form to the exterior of the laboratory door to certify that the laboratory poses no hazard to human health or the environment.

Questions? Call OES 829-2401

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EXHIBIT 2

Checklist for Moving Radioisotope Laboratories

In order comply with applicable regulations, OES Radiation Safety will assist you in the move from your old laboratory to your new space. Please review the checklist below to prepare yourself for the move.

1. Radioactive Materials Inventory: ***Plan on stopping radioisotope work 1 week prior to your move. This will give you time to perform all necessary survey and inventory procedures.***
 - a) Go through your inventory and see what can be disposed of (check for items which might have significant chemical degradation).
 - b) Isotopes that are saved must have inventory disposal sheets, and be checked for contamination. All stock vials must have their inventory/disposal sheets before being moved. Box stock vials separately. Shipping containers must indicate isotope, activity on shipping container. If you need additional shipping containers, contact Radiation Safety.
 - c) All radioactive samples in beakers, test tubes, culture dishes, etc. (liquid or solid) must be identified as to activity, isotope, and be checked for contamination. These must be properly packaged with isotope and activity listed on the shipping container. Notify Radiation Safety of any radioactive item that needs to be moved.

NOTE: Radiation Safety will deliver all radioactive materials to new locations. We can provide storage space to store stock vials until laboratory has moved to its new location.

2. Radioactive Labeled Equipment: (refrigerator/freezer, centrifuge, microfuge, pipetters, glassware, etc.).
 - a) Perform a wipe survey inside and outside of all labeled equipment for contamination - before packaging for the move. ***Do not defrost any freezer that is contaminated with radioactive material - Call Radiation Safety for assistance*** Save all survey results in your yellow binder.
 - b) If equipment cannot be decontaminated, notify Radiation Safety for assistance.
 - c) Labeled equipment must be tagged with a Radiation Safety supplied notice to inform the mover that the equipment is not contaminated and is safe to move.
 - d) Prepared your LSC Counter for shipping by contacting your service representative. Certain parts may need to be secured to prevent damage during the move.

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- e) Final Lab Survey - After all items are packed, do a thorough lab survey, benches, hoods, floors, shelves, waste areas, equipment, etc. Decontaminate before movers arrive.

- 3. Radioactive Waste: ***All waste containers will be transferred to your new lab by Radiation Safety.***
 - a) Empty all scintillation vials.
 - b) Any beakers, test tubes, microfuge tubes, etc. that may have radioactive waste should be disposed of in proper waste containers.
 - c) Perform a wipe test all waste containers, decontaminate if necessary.

Questions? Call OES Radiation Safety at 829-3281

(RPS-25B 8/00)

