Leaving MIT: EHS Considerations in Closing out a Laboratory

1. Purpose / Background
This document describes the environmental, health, and safety (EHS) administrative procedures the Massachusetts Institute of Technology (MIT) implements to close out a laboratory as a result of a Principal Investigator’s (PI’s) departure. These procedures are intended to support MIT’s Environmental Health & Safety Policy and comprise a portion of the MIT Environment, Health, and Safety Management System (EHS-MS).

2. Scope
The primary goals of MIT’s Laboratory Closeout Procedure are to ensure that:
- Spaces currently under the PI’s management have been adequately prepared for the next use;
- Costs for managing wastes generated from laboratory closeouts are correctly attributed;
- Opportunities for chemical/equipment salvage are created in order to reduce waste volume and disposal costs; and
- Environment, Health and Safety Office records and EHS-MS tools, such as the PI Registration database and EHS Training Needs, have been accurately updated.

The specific steps to be taken in the Department, Lab, or Center (DLC) to clear and decontaminate the space are addressed in the document “Moving a Laboratory: Preparation and Decontamination”. Also, the process that DLCs must follow in properly disposing of hazardous waste generated from a laboratory closeout are outlined in the document “Hazardous Waste Disposal”. Please also refer to the guidance document “HW Costs Covered by DLC-final.doc” for costs associated with waste disposal paid for by the DLC.

3. Prerequisites
DLCs may have their own individual administrative procedures in place relative to closing out a laboratory (e.g., process for collecting keys, closing out research grants, etc.). These issues are generally outside of the purview of the EHS Office. As part of implementing this SOP, however, DLC EHS Coordinators may need to familiarize themselves with DLC-specific requirements for closing out a laboratory. It is expected that if a conflict should arise between the DLC-specific procedures and the requirements of this SOP, the DLC EHS Coordinator would work with the EHS Office and the DLC to resolve the issue(s).

4. Procedure
4.1 Preparation and Decontamination of the Space
4.1.1 The DLC EHS Coordinator or the PI shall notify the EHS Office of the PI’s anticipated departure date, and any laboratory spaces that will be vacated as a result.
4.1.2 The EHS Office, via the Laboratory and Facility Design and Construction Review Services Team, will coordinate the technical aspects of the laboratory closure. Such aspects may include a radiation survey; equipment decontamination; other remediation of the space (e.g., asbestos or mercury

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removal); segregation of wastes; and EHS Office clearance of the space. The SOP “Moving a Laboratory: Preparation and Decontamination” outlines this procedure.

4.1.3 The remaining parts of this section outline the administrative requirements of concern to the EHS Office as it pertains to closing a laboratory associated with a PI who will be leaving MIT.

4.2. Removal of Hazardous Waste

4.2.1. Payment for removal of hazardous waste. Hazardous waste generated as result of a laboratory cleanout is generally considered a “non-routine” hazardous waste collection request. Generally, DLCs are responsible for payment of non-routine hazardous waste pickups. Clarification of “non-routine” costs are covered in the “HW Costs Covered by DLC-final.doc” guidance document.

4.2.2. Chemical salvage. To offset the cost of hazardous waste disposal and to reduce the amount of raw material in inventory in other laboratories, PIs who will be closing a laboratory are encouraged to offer surplus chemical stock to other laboratories that might otherwise place new orders for these materials. PIs who would like assistance in offering surplus chemicals for use may contact their DLC’s EHS Coordinator or they may contact the Environmental Management Program at the EHS Office (452-3477). Materials not transferred become waste that must be disposed; any materials disposed as hazardous waste become the financial responsibility of the DLC.

4.3. Research Protocols/Project Registrations

4.3.1 Biological Materials. PIs shall notify the Biosafety Program, by letter or email, with the expected termination date of any biological research registration. The Committee on Animal Care and Use (CAC) and the Committee on the Use of Humans as Experimental Subjects (COUHES) also require notification if a research protocol will be terminated.

4.3.2 DEA Controlled Substances and Select Agent Toxins. The Biosafety Program in the EHS Office maintains oversight of Institute use of DEA Controlled Substances and Select Agent Toxins. Laboratories using these materials must maintain a running inventory of the amount of substance in storage, used, and destroyed. Material that will not be consumed by the laboratory under the PI’s management must be destroyed or returned to the supplier (for DEA controlled substances) if possible. For Select Agent toxins, refer to the SOP “Select Agent Toxin Control and Containment Program: Purchasing, Inventory, Shipping, and Receiving Procedures”.

4.3.3 Radiological Materials. PIs shall notify the Radiation Protection Program, by letter or email, with the expected termination date of any project registrations/research protocols involving the use of radiological materials or radiation sources.

4.3.4 Transfer of DEA Controlled Substances, Select Agent Toxins, and Radiological Materials to another PI. Transfers of DEA Controlled Substances, Select Agent Toxins, and radiological materials from one PI to another are not allowed without prior authorization from the EHS Office/Committee on Assessment of Biohazards/Radiation Protection Committee. In cases where transfers are approved, the inventories of both the donating laboratory and the receiving laboratory shall document the transfer.
4.4. **Shipping Hazardous or Infectious Materials**

4.4.1 The U.S. Department of Transportation regulates the shipment of hazardous and potentially infectious materials. Anyone offering hazardous and/or potentially infectious materials for shipment must either be trained and certified accordingly, or must contact the EHS Office for assistance in preparing such materials for shipment.

4.4.2 Transport of hazardous or biohazardous materials on airplane baggage or on the body is prohibited by law. If the departing PI wishes to ship hazardous or biohazardous materials to a destination outside of MIT, arrangements must be made with the EHS Office to ship the material(s) in a manner that complies with DOT and IATA regulations.

4.4.3 The PI (or EHS Rep/DLC EHS Coordinator, as designated by the PI) shall contact the EHS Office if hazardous or infectious material will be shipped to another location from MIT. The EHS Office may either a) prepare the materials for shipment; or b) certify individuals in the lab to ship hazardous or infectious materials.

4.4.4 Individuals in the laboratory of the departing PI who wish to receive training in Hazardous or Infectious Materials Shipping may contact the EHS Office at 452-3477 or may register for the course at [http://ehs.mit.edu/site/training](http://ehs.mit.edu/site/training).

4.5. **PI Registration Database and EHS Training Needs**

4.5.1 **PI Registration Database.** The EHS Representative shall update the PI Registration Database to reflect the departure of a PI. If the EHS Representative is not able to perform this function, then the EHS Coordinator assumes responsibility.

4.5.2 **EHS Training Needs.** PIs that will be departing the Institute are responsible for updating their training records to reflect a de-affiliation with the Institute. The EHS Coordinator is responsible for reviewing Training Reports for the DLC to ensure that information accurately reflects the status of PIs who have left the Institute as well as those researchers under the PIs supervision.

4.5.3 **Transfer of Researcher Supervision to another PI.** In the case where supervision of the researchers is transferred to another PI, the individual shall update his/her EHS Training Needs accordingly.

5. **Roles & Responsibilities**

5.1. **Principal Investigators (PIs)** are responsible for notifying the EHS Office, or the EHS Office Programs through which they have project approvals/biological research registration, of their departure. PIs may notify EHS Office Programs (such as the Biosafety Program and the Radiation Protection Program), as well as other Institute oversight committees (CAC and COUHES) by email or hard copy letter of their intended lab departure date from the Institute, indication of termination date for biological research registrations/authorizations/protocols, and request any assistance with shipping hazardous or infectious materials.

5.2. **EHS Coordinators** are responsible for ensuring that the information contained in the PI Registration database accurately reflects the status of the laboratory (ies) under the departing PI’s management. In addition, EHS Coordinators are responsible for ensuring that individuals in the PI group have accurately updated their EHS Training Needs data.
5.3. **EHS Office Lead Contacts** work with EHS Coordinators in the DLCs to facilitate compliance with the requirements of MIT’s Environment, Health, and Safety Management System. Lead Contacts may play a supporting role in the Laboratory Closeout process, including ensuring that the PI Space Registration database has been updated.

5.4. **Environmental Management Program (EMP)** has oversight of the Institute’s hazardous waste management program. EMP is responsible for:

- responding to requests for hazardous waste collection;
- ensuring that hazardous waste is managed in compliance with federal and state regulations;
- managing MIT’s hazardous waste contractor (hauler), including payment of invoices for waste collection services rendered;
- packaging, or training DLCs in the packaging of non-waste hazardous materials; and
- maintaining records of hazardous materials shipments and individuals certified to ship those materials.

5.5. **Biosafety Program (BSP)** oversees the Institute’s biological materials and waste management program. BSP is responsible for:

- communicating requirements for biological materials management, including waste disposal and disinfection standards;
- ensuring that biological waste is managed in compliance with federal and state regulations;
- reviewing and registering biological research involving recombinant DNA, biological materials, human and animal materials, select agents and toxins, and DEA controlled substances;
- ensuring that researchers using DEA controlled substances and Select Agent Toxins maintain a proper running inventory, including proper documentation of disposition of the material(s) upon the closure of a PI’s space;
- packaging, or training DLCs in the packaging of, Category A or B infectious substances or other biological material to be shipped; and
- maintaining records of infectious shipments of biological materials and individuals certified to ship those materials.

5.6. **Radiation Protection Program (RPP)** has oversight of the Institute’s radiological materials and sources management program. RPP is responsible for:

- responding to requests for radioactive waste collection;
- ensuring that radioactive waste is managed in compliance with federal and state requirements;
- reviewing and registering projects involving the use of radiological materials and resources;
- ensuring that researchers using radiological materials maintain a running inventory of radiological materials in use or storage;
- packaging, or training DLCs in the packaging of non-waste radioactive materials; and
- maintaining records of non-waste radiological materials shipments and individuals certified to ship radiological materials.
6. Training
N/A

7. Monitoring Requirements
N/A

8. Record Management
8.1 EHS Office Records generated as a result of a Laboratory Closeout are to be maintained in accordance with the SOP “Retention of Records”.
8.2 DLCs shall maintain records of radiological substances, DEA controlled substances, and Select Agent Toxin substances inventories in accordance with the SOP “Retention of Records”.

9. References / Related EHS Guides:
9.1 Standards
9.1.1 EPA Hazardous Waste Regulations, 40 CFR 260-262
9.1.2 Massachusetts Hazardous Waste Regulations, 310 CMR 30.00
9.1.3 DOT Hazardous Materials Regulations, 49 CFR 171-185

9.2 Other SOP/ SOGs
9.2.1 Moving a Lab: Preparation and Decontamination
9.2.2 Principal Investigator (PI)/Space Registration
9.2.3 Potential Hazards Assessment within PI/Space Registration
9.2.4 Hazardous Waste Removal and Disposal
9.2.5 Select Agent Toxin Control and Containment Program: Purchasing, Inventory, Shipping, and Receiving Procedures
9.2.6 Retention of Records
9.2.7 Hazardous Waste Costs Covered by DLCs

10. Definitions
10.1 EHS Coordinator. The EHS Coordinator is a person in a Department, Laboratory or Center (DLC) who has responsibility for implementing the Institute's EHS Management System across the DLC. This person reports to the DLC Head on EHS issues. Some EHS Coordinators serve multiple DLCs. The EHS Coordinator is part of the EHS Management System organization.

10.2 EHS Representative. The EHS Representative is a person in a laboratory or facility, appointed by the PI, to assist with day-to-day management of EHS concerns within that lab. The EHS Representative reports to the Department, Laboratory or Center Principal Investigator / Supervisor and is part of the EHS Management System organization.

10.3 Principal Investigator. The Principal Investigator is a person who has the responsibility for overall EHS compliance within the laboratory and/or provides the research funding. Principal Investigators include faculty members, principal scientists, and other personnel as assigned by the DLC.