

Decommissioning of Hazardous Material Location

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Hazardous Materials Location Decommission Procedure

A. Regulations, Standards and References

Regulations:

40 Code of Federal Regulations §§ 260–262

Arizona Administrative Code R18-8-260 et seq.

Consensus Standards and References:

ANSI/ASSE Z9.11 – 2016 Laboratory Decommissioning

Arizona State University Hazardous Waste Accumulation Facility Emergency Contingency Plan

Arizona State University Chemical Hygiene Plan

Arizona State University Hazardous Waste Management Compliance Guidelines

Arizona State University Universal Waste Compliance Guidelines for Electronic Lamps

Arizona State University Biological Hazardous Waste Management Compliance Guidelines

Arizona State University Biosafety Manual

BMBL: BSL-1, A5b, p. 31; BSL-2, A5b, p. 34; 1910.1030(d)(2)(viii)(C)

BMBL: BSL-1, A7, p. 31; BSL-2, A7, p. 34; NIH G-II-A-1-b; NIH G-II-B-1-b

BMBL: BSL-1, p. 32; A11, BSL-2, A11, p. 35; 1910.1030(g) (2)

B. Scope

- This document provides appropriate guidelines for management, transfer and disposal of hazardous materials when a Principal Investigator, Researcher, or area manager at Arizona State University relocates or if the space is scheduled to close down. Failure to comply may result in scheduling delays and additional expenses.
- 2. Deviations from the Design Guideline must be reviewed and approved by EHS.
- 3. This document does not relinquish the owner or contractor from adhering to any and all applicable codes and standards for this project, requirements presented by the ASU



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Environmental Health and Safety (EHS), and including the requirements set forth in the ASU Design Guidelines.

C. Background

Arizona State University has comprehensive hazardous materials programs providing guidelines for the use, storage and management of hazardous materials. Additional programs are setup to address the management of biological and radioactive materials and their wastes. These are designed to ensure that hazardous materials and wastes are appropriately handled to protect human health and the environment as well as to comply with federal, state and local laws, rules and regulations.

D. Policy

To ensure proper management of hazardous materials and of equipment using hazardous materials when laboratories, shops, studios or other areas with hazardous materials are moved, vacated, closed out or equipment requires decontamination for relocation, or transfer. Prior to the area being vacated, equipment, chemicals, biological and radioactive materials must be properly transferred, removed or disposed. ASU EHS 405: Laboratory Start-up/Close-out and Equipment Relocation is designed to ensure the safety, prevent and minimize risk to the campus, cleaning and maintenance community who may enter the vacated facilities.

E. Notification, Close-Out Inspection, Location Move Assessment

Notify

- EHS must be notified as soon as the lab closure or move date is known to schedule a Close-Out Inspection and/or Move Assessment and determine the best method for the waste management and disposal to meet regulatory compliance. The Principal Investigator, Researchers, manager and the Department must identify all the chemicals and segregate them based on compatibility and hazard class. EHS contacted at <u>askehs@asu.edu</u>
- In the case of fume hoods or biological safety cabinets that are being moved to a new location or permanently decommissioned, EHS must be notified of the equipment tag # for inventory management or re-recommissioning procedures.

EHS Shall:

- 1. Provide guidance and assistance to ensure all hazardous material regulations are addressed to meet compliance.
- 2. Conduct an Area Close-Out Inspection and/or Move Assessment and determine the best method for the waste management and disposal to meet regulatory compliance. The methods may include internal and external resources to manage and perform hazardous waste activities. If the decommission or hazardous materials clean-out is part of a remodel/construction project a vendor should be managed by the ASU project manager and EHS provides regulatory technical oversite.



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- Assist in identifying hazardous materials to be moved by either ASU movers or outside vendors, or that can be approved for self-move, and provide guidance to ensure safe movement. EHS and a vendor cannot accept unidentified chemicals. However, vendor services may be used to conduct a chemical identification, at the expense of the PI, researcher or associated department.
- 4. Determine if known radioactive materials or heated perchloric acid was used in chemical fume hoods and that no contamination is present.
- 5. Pack and move hazardous materials identified during the Close-Out Inspection and/or Move Assessment. (EHS fee for service will apply)

F. Guidelines

- 1. General Guidelines
 - a. Never Transport Hazardous materials alone.
 - b. Always wear appropriate PPE for materials being transported and follow EHS Guidelines for Chemical Hazardous Waste Transport.
- 2. Compressed Gas Cylinder Guidelines:
 - a. All the compressed gas cylinders have to be handled by trained personnel only.
 - b. The gas cylinders have to be removed from the space and returned to the gas supplier or the chemical stockroom.
 - c. The cylinders owned by the laboratory or area may need to be moved to the new location.
 - d. The gas cylinders have to be properly identified, labelled and the pressure regulators must be removed and protective valve caps installed before transportation.
- 3. Chemical Safety Guidelines:
 - a. All the chemicals have to be properly identified and segregated based on compatibility and hazard class. The responsibility lies with the Principal Investigator, Researchers and the Department. EHS does not accept unidentified chemicals. If a waste chemical cannot be identified by the generator, EHS will arrange for a vendor to conduct identification testing prior to disposal. The waste generator will be responsible for the cost of identification.
 - b. Hazardous waste must be stored in appropriate containers for transport and disposal.
- 4. Fume Hood Guidelines:
 - a. For all instances of hoods being disconnected from the building ventilation system, the safety of those involved is the responsibility of the project manager.
 - b. When working on or dismantling fume hoods, universal safety precautions should be followed and personnel should always wear Nitrile gloves and safety glasses, at a minimum.



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- c. If potential contamination is identified or if there is a persistent chemical odor in fume hood system, EHS should be contacted for assistance.
- d. Maintenance on a roof: Since other exhaust systems from the building may be operational, respiratory protection may be required. Note: The use of respirators by ASU employees must follow the protocol established by the ASU Respiratory Protection Program.
- 5. Biosafety Guidelines:
 - a. All the biohazardous materials or waste should be decontaminated properly; sharps should be collected in appropriate sharps containers and disposed through environmental health and safety. Ensure none of the hazardous waste is left in the laboratory.
 - b. Moving or discarding, all materials including spills and other visible contamination must be removed by laboratory personnel.
 - c. If any equipment was used to store or work with biological or biohazardous materials, all surfaces must be wiped with a 1:10 bleach solution prior to moving by EHS. EHS must be contacted for instructions if radioactive materials have been stored in the unit.
 - A biological safety cabinet may only be moved after decontamination and the cost of decontaminating the cabinet is the responsibility of the laboratory/researcher.
 Whenever a biological safety cabinet is moved, it must be re-certified prior to use.
 - e. If the refrigerator or freezer is to be discarded, in addition to the steps listed above, contact Facilities Management to place a work order to have the refrigerant removed from the compressor (inoperable units) or, ASU Surplus Properties (working units). The cost of refrigerant removal is the responsibility of the laboratory.
 - f. After completing the appropriate decontamination, contact the Biosafety office at EHS to obtain a clearance to move or removal of the equipment.
- 6. Radiation Safety Guidelines:

Refer to the Radiation Inspection Checklist