UNMC

ENVIRONMENTAL HEALTH
AND SAFETY

UNMC Laboratory Closeout Policy

A laboratory close out involves the removal of chemicals from research laboratories, due to moves (relocations) or terminations and should not be thought of as a typical chemical waste pick up. For more information on this policy or if you have questions, contact the Environmental Health and Safety (EHS) Office at (402) 559-6356.

Basis for Policy

Researchers arrive at, move from lab to lab or building to building and depart from UNMC on a routine basis. Thispolicy ensures the safe handling and proper disposal of chemicals no longer needed by moving or departing researchers. It also ensures that safe, clean laboratory spaces are available to newly arriving researchers.

The Environmental Protection Agency (EPA) in Title 40 of the Code of Federal Regulations (CFR) requires that all unwanted chemicals undergo a hazardous waste determination prior to disposal. The Department of Transportation (DOT) in Title 49 requires that hazardous materials are transported to a hazardous waste disposal facility in accordance with the regulations.

Responsibilities

Principal Investigators (PIs): PI's at UNMC are primarily responsible for the safe operation of their laboratories and leaving all assigned areas in a clean and safe condition when vacated. Following the steps in this policy will allow for the safe handling of the unwanted chemicals, will ensure compliance with Federal regulations, and will minimize the number of unknown hazardous materials thus leaving the vacated laboratory in a clean, safe condition.

UNMC Department Chairs: In the event that a PI does not comply with the requirements, the department chair will ultimately be held responsible for ensuring that a laboratory chemical cleanout is completed prior to the laboratory being reoccupied. Department chairs will be responsible for assigning a technically qualified **laboratory representative** to assist with laboratory chemical cleanouts. If department chairs do not have the staff or the knowledge to safely conduct a laboratory chemical cleanout please notify EHS. Department chairs will be fiscally responsible if any additional costs are incurred.

Environmental Health and Safety (EHS). The EHS will consult with the PI, will review chemical lists in a timely manner and pick up all chemicals when they are ready. The EHS will also store and ship the chemicals in compliance with federal regulations. The EHS, however, cannot be expected to make up for last minute cleanout requests due to non-compliance of this policy or, if department chairs do not have the staff or the knowledge to safely conduct a laboratory chemical cleanout, **EHS reserves the right to**:

1. Require a Purchase Order (PO) from the department chair to pay for the independent contractor work.
2. Hire an independent contractor to provide a full service laboratory cleanout.
3. Require the department chair to inform the appropriate personnel that further work and or occupancy to the laboratory will be delayed, until the laboratory cleanout is completed.

The EHS department will inspect the laboratory and sign off on the Laboratory Closeout Checklist after all chemicals are removed. They will notify the UNMC Compliance Officer to resolve any improper disposal or non-compliance issues.

Procedures

To ensure that hazardous materials are not left behind, that laboratory spaces are safe and to ensure compliance with federal regulations PIs or department chairs must comply with these steps in the event of a laboratory chemical cleanout.

A. Laboratory Chemical Clean-out Preparations

1. The laboratory representative will be qualified to answer questions from EHS relative to the technical nature of the chemicals to be disposed.

2. The laboratory representative will be responsible for locating and labeling all unmarked or unclearly labeled containers. This includes deciphering complicated chemical structures as well as listing complete chemical names if only acronyms or abbreviations are on the container.

3. The laboratory representative will isolate unknown chemicals, for later identification.

4. The laboratory representative will transfer chemicals that are in open containers (e.g. beakers, or flasks) into closed, labeled containers that are compatible with the chemical.

5. The laboratory representative will designate and offer to other responsible laboratory personnel any usable chemicals for chemical redistribution.

6. The laboratory representative will remove their chemicals from any shared storage units such as refrigerators, cold rooms, or stock rooms and make them ready for disposal.

7. The laboratory representative will follow the Waste Handling policy and IBC-17 for laboratory decommissioning.

8. The lab or area representative will contact the Radiation Safety (402) 559-9319 for guidance on the disposal of any radioactive materials.

9. Biohazardous and/or radioactive waste must be segregated from all other wastes.

10. The laboratory representative will segregate all gas cylinders to be disposed. Ensure that all cylinders are labeled with their contents, concentrations, hazards, and precautions. Make every effort to identify gas cylinder contents as unknown gas cylinder disposal is expensive.

11. The laboratory representative will clean all work surfaces, lab equipment, fume hoods, refrigerators, freezers, cabinets, drawers, shelves, storage cabinets, and floors to ensure they are free of hazardous materials.

12. The laboratory representative will compile a list of all chemicals to be disposed.

B. Notification of the UNMC Environmental Health and Safety

1. The primary investigator or department chair will notify the EHS of the need for a chemical cleanout, by completing and submitting the Laboratory Closeout Checklist. This is to be completed at least one month in advance of the official evacuation date.

2. EHS personnel will review the form and attached chemical list. EHS will determine which chemicals are regulated by the EPA and DOT and will send the PI or laboratory representative instructions on how to proceed with each chemical.

C. Chemical Tags

1. PI's or laboratory representative will fill out chemical collection tags with all of the required information and affix them to regulated chemicals that are marked to be tagged. Non-regulated chemicals will be noted and can be picked up without having to complete chemical collection tags.

2. EHS personnel will contact the PI or the laboratory representative to coordinate the pickup of the tagged and untagged chemicals.

3. EHS will assess the hazards of all chemicals, store them appropriately and prepare them for proper disposal.

Prohibitions

Government regulations **strictly enforce** chemical disposal, therefore:

1. No chemicals should be disposed in the sink or trash, unless approved by EHS.

2. No chemicals should be disposed by evaporation.

High hazard chemical disposal

EHS must plan carefully for the handling and disposal of any high hazard materials that have been identified during the chemical clean out process. This could include chemicals that are water reactive, pyrophoric, shock sensitive, temperature sensitive, or highly toxic materials. Please follow directions carefully for these types of chemicals.

Expired peroxide forming compounds (PFCs) must be tested and sometimes managed as explosives. As a result a contractor may need to be hired to dispose of PFCs that have exceeded their recommended storage time. The cost for this service will be the responsibility of the PI and/or department chair.

Unknown Chemicals

It is the responsibility of the PI or department chair to ensure all unknowns are identified either by process knowledge or analytical determination. In the event that unknown chemicals cannot be identified, the EHS will contact an approved hazardous waste disposal contractor, to provide a cost estimate to perform an analytical determination of the unknown chemical(s). The cost estimate will be given to the PI and/or department chair, who will provide a PO to EHS to pay for the expense.

Please call 402.559.6356 or
email unmcehs@unmc.edu with any questions.