

**Creighton University**  
**DECOMMISSIONING OF LABORATORIES**  
(Facilities Perspective)

**PURPOSE:** To provide management guidelines for Facilities Management personnel and to provide information necessary to inform contractor personnel of past use of facilities, of hazardous, radioactive and biological materials within the vacated areas, and of appropriate decontamination.

**HISTORICAL PERSPECTIVE:** Laboratories in academic settings may house and utilize hazardous chemicals, radionuclides, and biohazardous materials. These and other potentially hazardous items may be housed in facilities that contain asbestos, lead, PCB's, CFC's, and other potentially dangerous materials. Age of the facility and type of research conducted in the past are accordingly significant issues. Due to the nature of ever-changing science, updating requirements of equipment and facilities, and turnover of faculty and employees, it is often difficult to ensure that all parties who are potentially involved in personnel or functional usage of laboratories are fully informed of any changes that are to occur. (NOTE: The above does not apply to Computer Labs.)

**DEFINITION AND EXPLANATION:** For the purpose of this procedure only, decommissioning will be defined as:

1. Any action within an existing laboratory where the space occupied will no longer be utilized as a laboratory

OR

2. Where renovation or remodel requires construction or modification of permanent fixtures, HVAC, walls, ceilings, floors and floor coverings, plumbing, gas, and electrical modification on a large scale after the laboratory has been vacated by previous occupants.

**PROCEDURE:** If a laboratory is vacated by a researcher and is to be re-occupied by another researcher, and there will be no physical change of the facility, then only facility decontamination is required and Facilities Management does not follow the procedures outlined below. The decontamination procedure is covered on the website <http://www.creighton.edu/EHS>, under "Vacating a Lab".

When there are physical changes to be made to the facility, refer to the "Decommissioning for Renovation/Remodel/Demolition" section below to begin full decontamination procedures. Certification of appropriate vacation of the lab and decontamination of same must be provided to Environmental Health and Safety and when applicable to Radiation Safety by the Primary Investigator or his/her Department Chairperson.

This procedure was developed to provide guidance regarding safety issues for Facilities Management and Contractor Personnel who will work in former laboratory areas. There may be times where penetrations through walls, and areas unknown at the time of EH&S review may indicate additional review of previously unknown safety considerations. When this occurs, the contractor should notify the Project Manager of the issue, and the Project Manager should notify EH&S for secondary review.

**DECONTAMINATION FOR RENOVATION/REMODEL/DEMOLITION:**

In light of previous uses of the facilities and the possible presence of hazardous and or radioactive materials, it is prudent to ascertain the history of the facility, to ensure appropriate decontamination

when applicable, and to document these actions. Accordingly, where possible, the following must be accomplished when a lab is to be decommissioned for renovation/remodel/demolition:

1. **HISTORICAL SITE ASSESSMENT:** To be accomplished by the Planning and Design Department of Facilities Management. This will include review of records, drawings, and blueprints. It will also be considered to be integral with the design review check off list. This information is to be provided to EH&S and Radiation Safety in order that the below listed actions may be accomplished.
2. **CHARACTERIZATION ASSESSMENT:** A determination of the types of research that were conducted, and when, in that space. This information can be provided by lab occupants, EH&S, or Radiation Safety personnel to the best of their knowledge.
3. **REMEDIAL EFFORT(S):** removal of all chemicals, hazardous and radioactive materials, and decontamination of fixtures and equipment. This must be accomplished through coordination with the Primary Researcher and/or the affected Department Chairperson. The PI and Chair send the "Vacating a Lab" form to EH&S for verification.
4. **FINAL SURVEY ASSESSMENT:** (Review, certification, and documentation of decommissioning of the facility by EH&S and/or Radiation Safety as applicable). This will be accomplished via physical review and examination of the vacated facility and wipe tests as required for radioactive materials.

#### **PROCESS:**

#### **FACILITIES MANAGEMENT**

1. When notified by the using department of the intent to remodel, renovate, or demolish an existing laboratory, it will be the responsibility of the Planning and Design Department of Facilities Management to notify EH&S and Radiation Safety via work order and e-mail.
2. Notification to EH&S and to Radiation Safety must be documented and contain specifics which would include but not be limited to:
  - a. Proposed action date(s)
  - b. Scope of work proposed
  - c. Contact personnel
  - d. Copies of Blueprints and As Built Drawings when available.
3. EH&S and/or Radiation Safety will provide copies of the "Vacating a Lab" form to the Planning and Design Department.
4. Contractors are to be briefed regarding safety issues relevant to the project by EH&S and/or Radiation Safety, as necessary. Briefings will be documented and documentation will be maintained by Planning and Design as a portion of the project.

#### **ENVIRONMENTAL HEALTH & SAFETY & RADIATION SAFETY**

1. When the laboratory is an active, functioning laboratory at the time of notification of proposed construction action(s), coordination with P.I.(s) and/or Chairpersons at the earliest possible time is imperative. Coordination regarding evacuation of the laboratory and the removal of all

research materials and equipment will be in accordance with guidelines for vacating a laboratory.

2. If the laboratory is an inactive, non occupied facility, and the lab has not been fully vacated, the previous occupying P.I. and or Department Chair must be contacted regarding complete vacation and certification of decommissioning prior to any construction actions.
3. EH&S and/or Radiation Decommissioning Approval Forms/Checklist(s) (attached) are to be completed and forwarded to the Planning and Estimating Department of Facilities Management

Reviewed by Mary Duda  
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	<b><u>ENVIRONMENTAL HEALTH &amp; SAFETY CHECKLIST</u></b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>1</b>	Has EH&S been notified of the renovation and decommissioning process?			
<b>2</b>	Have all chemicals been removed/relocated from the facility?			
<b>3</b>	Has all hazardous waste been reported to EH&S and relocated in preparation for the move?			
<b>4</b>	Has the laboratory been evaluated and tested for Asbestos Containing Materials (ACM)? Floor tile, mastic, pipe wrap, lab equipment etc.?			
<b>5</b>	Has abatement of asbestos been accomplished and documented?			
<b>6</b>	Have fume hoods, biological safety cabinets, refrigerators and lab equipment been decontaminated prior to removal from the Facility?			
<b>7</b>	Has certification of appropriate decontamination been received by EH&S Chemical Coordinator?			
<b>8</b>	Has a copy of certification of appropriate documentation been forwarded to Facilities Management, Planning and Design Dept?			

	<b><u>RADIATION SAFETY CHECKLIST</u></b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>
<b>1</b>	Has Radiation Safety been notified of the renovation/decommissioning?			
<b>2</b>	Has the radiation signage and materials present in the laboratory been removed?			
<b>3</b>	Are current occupants being relocated?			
<b>4</b>	Is there a previous history of radioactive material usage in the facility?			
<b>5</b>	Are there hoods in the facility, and have they been approved for removal in coordination with EH&S?			
<b>6</b>	Has an exit survey been conducted and completed?			
<b>7</b>	Has the sink trap been certified as non-radioactive?			