

RADIOACTIVE MATERIALS DECOMMISSIONING AND LICENSE TERMINATIONS

Scope of Decommissioning Policy

The decommissioning policy for radioactive materials licenses and rooms authorized to contain radioactive materials is described herein. There are many tasks that must be given due consideration when decommissioning or “closing out” a laboratory where radioactive materials (RM) are used and stored. These requirements may result from (1) an upcoming move of licensed operations from one area of the UAB Campus or Medical Complex to another; (2) the termination of an investigator’s radioactive materials license; or (3) the “close out” of just one or more rooms listed on an existing radioactive materials license (RML). Holders of the RMLs must notify the Radiation Safety Program and their department heads of their “Intensions to Vacate” certain premises. They must then prepare for, schedule and have all radioactive materials properly removed from the affected room(s), and ensure that necessary “Room Surveys For Release” is performed for each room being decommissioned. Finally, licensees must receive **final approval** from the Radiation Safety Officer and **Decommissioning Certificates** from the Radiation Safety Program giving notice (for posting) that the rooms have been properly decommissioned. Other pertinent documents regarding their license may need to be filed with the Radiation Safety Program if their RML is being terminated. The specific requirements regarding the necessary steps to be taken (i.e., scheduling, notification, RM packaging and transfer, RM licensing, decommissioning and required documentation) are addressed in the instructions below. Additional copies of this document are available from the Radiation Safety Program of the Occupational Health and Safety Department.

Departmental Responsibilities

Radioactive materials license (RML) holders have traditionally been authorized to possess and use radioactive materials only when first approved to get an RML by the chairpersons of their respective departments.

The chairpersons must also give departmental approval for any alternate licensees whose names appear on RMLs. Alternate licensees are staff investigators that have agreed to accept the responsibilities of radioactive materials licensees in the absence of the holder of the RML.

Department chairs in which radioactive materials are used are ultimately responsible for the possession of any radioactive materials within any of their facilities. They may have inherited this responsibility of initial approvals by previous chairs, and this responsibility includes the safety and condition of a laboratory in which these materials are stored or used.

When unsafe conditions are brought to the attention of licensees or department chairs, corrective measures must be taken. In the absence of radioactive materials licensees and their alternates, the departmental chairperson has the final responsibility for ensuring that appropriate measures are taken. It is required that measures are taken to prevent this situation from recurring.

The department will be held responsible for the costs incurred for materials and labor required to correct deficiencies.

Licensee Responsibilities

Prior to termination of radioactive materials use programs or specific areas within a program or leaving UAB, RML holders are responsible for the following:

1. The Radiation Safety Program (RSP) must be notified of any change in their campus mailing address.
2. The RSP must be notified well in advance of dates when RML laboratories are vacated, closed out for radioactive materials (RM) use and released for **non-radioactive use only**. Such notification is necessary so that RSP personnel may conduct **Exit Audits** to ensure that the laboratory activities will be properly closed out and the areas properly released for future use.
3. Scheduling the decommissioning survey by Radiation Safety Program personnel. Do not allow further use of room with any radioactive materials prior to the closeout. Radiation Safety personnel will also conduct surveys of the area and will decommission it depending on the results of their survey. Any radioactive warning posters at the entrance to rooms or areas within rooms must be removed. Copies of the radioactive materials decommissioning certificate must then be posted on at least one wall within each of the decommissioned rooms.
4. Final arrangements for the proper disposition of all radioactive materials (RM) must be in a timely manner and usually well in advance of vacating the premises. For RM destined to be transferred to the Regulated Waste and Hazardous Materials Facility (HMF), schedule RM waste pickups by calling extension 4-3797.
5. Radioactive waste manifests must be **fully completed** for all radioactive wastes expected to be transferred to the Regulated Waste and Hazardous Materials Facility (HMF). This should be done well, in advance.
6. Prior to any and all transfers of RM, the Radiation Safety Program must be contacted to obtain proper authorization. Authorization numbers are issued if the information given regarding the transfers is in compliance with the regulatory requirements. Receivers of RM must be properly licensed the material to be transferred.
7. If other RML holders are expected to immediately take over vacated laboratories, then proper notice must be given to the Radiation Safety Officer (RSO).
8. If licensees are planning to move to other locations, then they must have their radioactive materials license amended to authorize these new areas. The old areas are removed from the license **only after** they are properly decommissioned.
9. Thorough area surveys (wipe tests) must be taken of all laboratories listed on the **current** license. The wipes should include:
All bench surfaces, any storage units left behind, any equipment left behind where radioactive material was used or stored. Fax a copy of **test result (liquid scintillation print-out) to 934-7487** to the attention of Robert Heath, Jr.
10. All equipment and/or processing equipment (i.e., refrigerators, hoods, centrifuges, autoclaves, etc.) used for radioisotope storage or work, if contaminated, must be decontaminated, and then surveyed for final release at background levels. Sealed radioactive sources must also be removed **from equipment** before disposal, but only by authorized personnel.
11. Laboratory equipment to be left for the next occupant **must be** cleaned or otherwise decontaminated and tagged for release before the laboratory is vacated. **This includes the** decontamination of freezers, refrigerators, incubators, drying ovens, etc. The RSP must be notified if exhaust or filtration equipment is suspected to be contaminated with radioactive materials.

12. Radiation Safety Release Tags must be placed on equipment destined for transfer and before the laboratory is vacated and especially before any of this equipment is moved!
13. For moves involving unlabeled radioiodine work in relocated areas, the RSP personnel must inspect and ensure that it has been properly authorized (i.e, the fume hood, safety cabinet, etc.) for this purpose.
14. Stock radiochemicals that are still usable can be transferred to other radioactive materials licensees specifically authorized to receive them in compliance with the conditions of their RMLs. Empty vials with residual activity must be treated as radioactive wastes! Radioactive wastes generated by RMLs must be removed from laboratories or storage rooms prior to releasing them for regular nonradioactive use.
15. All radioactive materials signs or related signs must be removed before vacating the laboratory including those signs placed on the entrance doors to the laboratories, but only after the lab is cleared. **Keep in mind that you are prohibited from throwing radiation caution signs and postings in the non-radioactive waste stream.**
16. Package all radioactive materials (stock vials, sealed sources, and wastes) and label each container in accordance with the UAB Radiation Safety Manual and in accordance with any specific instructions given to you by the Radiation Safety Program for transfer to other radioactive materials licensees, including the HMF facility. Radioactive wastes may be transferred only to the HMF. Radioactive waste manifests must be fully completed and sent to the HMF, before actual transfers are made. Radioactively contaminated lead containers may not be submitted for disposal. They should be set aside for decay to background levels or decontaminated. If they can't be decontaminated, they have to be treated as mixed wastes.
17. Following removal of all radioactive materials, perform a radiation level and contamination survey (using appropriate instrumentation) of all areas within licensed laboratories to be closed out. NOTE: Areas likely to have residual contamination include refrigerators/freezers, centrifuges, water baths, hoods, sinks, floor areas under waste containers, etc. In addition, if there are contaminated areas or equipment in the laboratory, they must be decontaminated. Final surveys must be performed to ensure that all areas are free from radiation and radioactivity.
18. Mishandling of radioactive materials can result in citations, fines and/or loss of right to use them in the future. Adverse publicity is also a frequent result.
19. One of the most problematic situations is in shared storage areas such as in refrigerators, freezers, cold rooms, stock rooms, waste collection areas, etc., particularly if no one has been assigned to manage the unit. Departing researchers must carefully survey any shared facility in order to locate and appropriately dispose of their **own** radioactive materials.