Radioactive Material (RAM) Lab Close-out Detailed Guidelines

• Pick a date when RAM will no longer be used. *It is extremely important to allot enough time for the process below.*
  o Stop all experiments involving RAM.
  o Only qualified radiological workers may perform surveys and handle RAM.
  o Initiate lab close out process.
  o Inform EHS that the close out process has begun.

• Perform a close-out of all RAM labs according to the “Checklist for Moving Radioisotope Laboratories” policy found on the EHS website.
  o Follow the steps on the checklist at [http://www.buffalo.edu/facilities/ehs/lab-safety/moving-labs-or-equipment.html](http://www.buffalo.edu/facilities/ehs/lab-safety/moving-labs-or-equipment.html).
  o Communicate any questions or unexpected findings to EHS.

• Decontaminate all areas and items as necessary (exception for small contaminated items such as pipettes and small centrifuges).
  o Use standard decontamination methods.
  o Wear appropriate PPE (gloves, lab coat) and dosimeters.
  o Have a portable survey meter on and in the work area.
  o Use Radiac wash or other spray cleaning solution.
  o Use paper towels.
  o Work from least contaminated surfaces to most contaminated.
  o Perform wipe surveys.
  o Dispose of gloves and cleaning materials as radioactive waste.

• Survey RAM storage freezer frost. Arrange for EHS to defrost contaminated freezers.
  o Required for long half-life RAM (especially H-3 and C-14) in a non-frost free freezer.
  o Collect frost/ice from the freezer near the RAM storage.
  o Place the sample in a counting vial.
  o Allow the frost/ice to melt.
  o Analyze the vial using a liquid scintillation counter.
  o Notify EHS of the results.
• Consult with EHS concerning survey results and decontamination progress.
  o If decontamination is not possible, item will have to be disposed of as radioactive waste.
  o Save survey results for review by EHS.
• Follow the “Checklist for Servicing Radioisotope Equipment” found on the EHS website regarding contaminated equipment.
  o Follow the steps on the checklist at http://www.buffalo.edu/facilities/ehs/lab-safety/moving-labs-or-equipment.html.
  o Communicate any questions or unexpected findings to EHS.
• Have EHS verify all equipment is decontaminated.
  o Allow time for EHS to perform confirmation surveys.
• Dispose of unwanted inventory and samples (do not empty stock vials into liquid waste containers).
  o Put stock vials in appropriate **dry** waste container.
  o Put unwanted samples in the appropriate waste container.
  o Provide the completed “Radioactive Material Package Receipt and Disposal Record” form to EHS for all disposed of stock vials.
• Submit request to have all waste containers removed by EHS.
  o Retain adequate waste containers until surveys, decontamination, and inventory disposal is completed.
  o Seal the waste container.
  o Perform a wipe survey.
  o Decontaminate the container if contamination is detected.
  o Complete a “Request for Radioactive Waste Disposal” form listing the containers to be picked up by EHS.
  o Attach the wipe survey results to the waste container.
  o Provide the completed “Statement of Radioactive Waste Container Contents” form to EHS during the container pickup.
• EHS will transport radioactive samples (including standards and check sources), inventory, and small contaminated items. **Only EHS can transport RAM!**
• EHS will move portable survey meters, dosimeters, and Radiation Protection binders.
  o Do not pack these items.
• Request empty waste containers from EHS for new location.
  o Determine locations for storage of waste containers in the new lab.
  o Provide locked cabinets for the waste containers if stored in an open lab.
  o Complete a “Request for Radioactive Waste Disposal” form listing the containers to be delivered up by EHS.
• Liquid scintillation and gamma counters will not be moved by EHS. Make arrangements with the manufacturer for moving without damaging the equipment. Most liquid scintillation counters have an internal radioactive source that must be removed by the manufacturer prior to disposing of the instrument.
• Provide appropriate security (locked cabinets, freezers, refrigerators, etc.) for radioactive material stored in open laboratories.
  o Complete a “Requirements for Restricted Areas in Open Laboratories” application form.
  o Obtain approval to use RAM in an open lab from Dr. Laychock.
  o Review every protocol involving open lab RAM use and provide a written plan describing the specific storage locations and facilities.
  o Submit the plan to the EHS for approval by the Radiation Safety Committee.
  o Obtain the appropriate lockable storage facilities.
  o Implement the open lab security plan.
• Submit “Laboratory Door Signage Worksheet” forms to EHS for all new lab locations.
  o No RAM can be stored or used in the lab until the room is posted.
  o Complete the form at http://www.buffalo.edu/facilities/ehs/lab-safety/lab-door-signs.html.