

Laboratory Relocation Guidance

This laboratory relocation guidance document is intended to ensure that laboratory spaces being closed, relocated, renovated, or vacated are left in a safe condition and that hazardous materials are handled and disposed of appropriately during the close out process. If you are unsure about any aspect of moving your laboratory, including planning, preparation, packing, or waste disposal, please ask questions! If you have any health and safety related concerns pertaining to vacating your old laboratory and research area, or occupying a new one, please contact Safety and Risk Management (SRM) at 828-227-7443.

The forms referenced in this document can be found at the [Laboratory Safety](#) webpage under the “Lab Move or Close Out” link.

Laboratory Close Out Procedure

- STEP 1: At least three months before you move, or as soon as reasonably possible, review the **Laboratory Closeout Procedure Checklist**. It covers general points to help you safely and efficiently dispose of unwanted lab materials and equipment.
- STEP 2: At least 30 days before the move, schedule a tour of your vacating lab(s) with Safety and Risk Management (safety@wcu.edu). During the tour, SRM will help you address any safety issues and devise a plan to safely dispose of unwanted items.
- STEP 3: Move into the new lab following the guidelines below for chemical, biological, radiological, and equipment management.
- STEP 4: After the laboratory move, submit the completed **Laboratory Closeout Procedure Checklist** to Safety and Risk Management. When the form is received, a safety officer will conduct a walk-through of the vacated lab space to ensure that all hazardous materials have been removed and the area cleaned and decontaminated.

Chemical Management

- Assess all the chemicals in your lab(s). Unknown, highly reactive, or expired materials, such as peroxide formers, can be extremely dangerous to move. Determine which materials will still be used in active research projects and will be transferred to your new space. Plan to dispose of any unwanted chemicals or chemicals that you know will not be used in future research projects.
- All chemicals that will NOT be transferred to your new laboratory must be disposed of through SRM. NEVER dispose of any chemicals by pouring them into sinks or other drains, by evaporating them in hoods, or placing in the regular trash.
- Chemical waste will NOT be transported to your new lab location. All chemical waste must be disposed of through SRM.
- Identify chemicals that may need special handling or containers to be moved, such as compressed gas cylinders, poison inhalation hazards, air reactive chemicals, and DEA controlled substances. Transport of these chemicals will be addressed during your lab’s closeout procedure.
- Look for old supplies from past researchers. Many labs have inherited chemicals that must also be identified and disposed of before moving to a new location.

- If you find unlabeled or unclearly labeled containers, make sure to label them with full chemical name (not formula) as soon as they are located. Unlabeled chemicals will not be moved. If you cannot identify the material, attach a waste tag, mark it as “unknown”, and place it in your waste accumulation area for disposal.
- Mercury and mercury containing equipment, including mercury thermometers, pose special risks during moves. Labs are strongly encouraged to dispose of mercury thermometers through SRM as chemical waste prior to moving.
- Gas cylinders and lecture bottles that are no longer used should be returned to the manufacturer. Cylinders that cannot be returned to the manufacturer must be disposed of as chemical waste.
- Tubing and regulators connected to corrosive or hazardous compressed gas cylinders should be detached using safe procedures such as purging and venting to a hood or ventilated area. Contact SRM for assistance or direction with this process.
- Prior to leaving the old lab location, tubing and regulators must be removed from all gas cylinders. Caps must also be placed on the cylinder, whether they are being moved to your new location or being returned to the manufacturer.

Biological Materials

- Assess all biological materials (recombinant DNA, microorganisms, cells and cell lines, tissues, organs, body fluids, plants, insects, and any biologically-derived or -contaminated media, etc.) in your lab and determine which materials will be transferred to your new lab. Plan to dispose of unwanted materials as you normally would during an experiment.
- If you will be cleaning out a large amount of biological waste for autoclaving, work with your waste coordinator and SRM to ensure that there will be sufficient containers, and that autoclaved waste is removed in a timely fashion. Individual biological waste bags should weigh 20 pounds or less.

Radiological Equipment and Materials

- Notify SRM at least 30 days prior to moving x-ray equipment to ensure NC RPS registration is completed in a timely manner.
- Notify SRM if any radioactive materials will be transferred to the new lab location or disposed of as waste.

Laboratory Equipment

- Equipment, such as biosafety cabinets, glove boxes, centrifuges, ovens, laminar flow hoods, etc., must be decontaminated prior to being moved. Decontamination is the responsibility of the lab. Contact SRM if you are unsure of the appropriate way to decontaminate a piece of equipment.
- Clean and defrost refrigerators and freezers prior to moving the equipment.

Equipment Disposal & Surplus

- Unwanted or broken equipment, such as refrigerators, freezers, incubators, centrifuges, vacuum pumps, etc., may be discarded through WCU Surplus. Equipment that could possibly be contaminated with biological, chemical, or radioactive materials MUST be decontaminated and cleared by SRM prior to surplus pickup. Lab personnel are responsible for equipment

decontamination prior to disposal. Submit the **Surplus Equipment Clearance Form** to SRM to schedule the clearance.

- Any equipment that may contain oils or refrigerants **MUST** be drained prior to disposal. The oil is collected for hazard waste disposal.

Transporting Materials Safely

- Hazardous materials, including, biological, chemical, or radioactive materials, must not be moved in compromised containers. This is one of the major causes of spills, so please ensure all containers are free from cracks and chips.
- Notify SRM if any hazardous materials, biological or chemical, will be transported in any type of vehicle. This notification should be made as soon as possible so there is sufficient planning time if special arrangements are necessary.
- Seek assistance from SRM in planning the removal or safe transfer to your new lab of any materials that may need special handling or containers (compressed gas cylinders, poison inhalation hazards, air reactive chemicals, and DEA controlled substances) as identified during the chemical inventory assessment.
- Separate chemicals by the following hazard class and transport with sufficient packing material to prevent bottles from breaking: Inorganic oxidizer, flammable liquid, inorganic acid, inorganic base, organic acid, oxidizing acid, flammable solid, organic compounds not listed in former groups, inorganic compounds not listed in former groups.
- Avoid transporting hazardous materials alone and never transport in a personal vehicle.
- Have boxes, plastic bags, and containers for broken glass, etc., ready and available before the move begins. Spill clean-up materials should be available at the time of the move in case there is a spill while packing or unpacking.
- Biological, chemical, and radioactive materials must be transported in secondary containment (even when just moving a few doors down the hall).
- Package and move lab items only during normal business hours (8:00 a.m. - 5:00 p.m.) so staff will be available to help if there is a spill or accident.
- Wear appropriate personal protective equipment (PPE) for the materials being handled (safety glasses or goggles, lab coat, gloves, closed-toe shoes, etc.).
- Back pain, often caused by heavy lifting, is one of the most common work-related injuries. Apply the following ergonomic principles to prevent injuries and maintain a healthy back:
 - Keep your head up and maintain the natural curve in your back
 - Tighten your abdominal muscles before you lift
 - Plan ahead and before lifting test the weight you are about to lift
 - Share the load, if it is too heavy ask for help
 - Hold objects close to reduce pressure on your back
 - Pivot with your feet when lifting, don't twist
 - Lift with your legs while keeping your back in a neutral position

Thirty Days Before You Move

- Inspect your lab(s) again to be sure all unknown materials have been identified and no new ones have been created while preparing to vacate the lab(s). It is productive to repeat this step of the close out process, because identifying and disposing of "unknowns" is a major cost item in laboratory close outs.
- All surfaces and equipment in the lab(s) will need to be disinfected, cleaned, or decontaminated to assure that no biological, chemical, or radioactive contamination remains.
- Check beneath hoods, in shared labs and equipment, and in freezers, refrigerators, or cold rooms for biological, chemical, or radioactive materials that might easily be left behind.
- Follow-up on the status of time critical close out plan steps such as: chemical and radioactive waste collection and special equipment moving arrangements.
- Depending on the scale of the move, such as when whole buildings are vacated for demolition, there may be designated waste collection events. You should use this opportunity to get rid of old, unwanted chemicals. Smaller moves, or single lab moves, may not have this available. You must work with SRM to ensure timely removal of chemical waste.

Occupying New Laboratory Space(s)

- Have boxes, plastic bags, and containers for broken glass, etc., ready and available before you begin unpacking. Spill clean-up materials should be available while unpacking in case there is a spill.
- Review the location of safety showers, eyewashes, fire extinguishers, and all available means of exit from laboratories and the building for your new location. This should also include the designated meeting site for your new building.
- All biological safety cabinets must be certified again after the move to ensure filter integrity.
- Schedule a radiation survey with SRM for any x-ray equipment that has been relocated.
- Submit a new **Laboratory Registration Form** to SRM. Updated door signs with emergency contact information will be posted by SRM.
- Submit an updated chemical inventory for the new location.
- Submit an updated biological agent inventory to SRM for the new location.
- Submit an updated Laser Registration form to SRM.
- Make sure any required warning signs for radioactive materials, biohazards, lasers, etc. are posted in your new lab location.
- Update your Lab Specific Chemical Hygiene Plan (CHP) and SOPs as needed to address the new locations of safety equipment (i.e. eye wash, safety shower, fire extinguishers).