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| **IMPORTANT: If you are moving into laboratory space in a new building, contact EHS at 540-231-3600**  **as soon as you are aware of the planned move.**  **If you have any questions at all, please do not hesitate to call EHS.** |

**I. BEFORE MOVING IN (At least 3 or More Weeks Prior to Move)**

**Safety EquipmentTesting by EHS or Contractors**

Contact EHS and your building manager or departmental administration to accomplish the following. Safety equipment includes chemical fume hoods, emergency eyewashes and showers, fire extinguishing systems, etc. Choose the option that best suits your situation:

Moving into a previously occupied lab (not renovated) on campus: Ensure that 1) functional testing of existing safety equipment (and repair, if needed) is scheduled and completed, and 2) functionality has been demonstrated *prior to moving any biological, chemical or radiological materials into the lab.*

***NOTE: EHS cannot assist with hazardous material moves until this is complete.***

Moving into a lab in a new building on campus, or a renovated lab on campus: Functional testing of new safety equipment is performed by outside vendors/contractors for commissioning or verifying installation. Ensure that this testing 1) was completed, 2) functionality has been demonstrated, and 3) documentation of testing has been provided to EHS before you occupy the lab.

**Visit the Laboratory Space**

Contact your building manager or departmental administration as needed for assistance with the following items.

Electrical Outlets -- Verify type/ number, and plan equipment locations so circuits will not be over-burdened; make note of outlets needed at different voltages (i.e., 220V).

GFCI Outlets – Verify number and make note of additional GFCI needed.

Emergency Power Outlets – Verify number; plan equipment locations accordingly.

Computer Network Ports – Verify number and location; make note of additional ports needed.

Lab Utilities – Verify functionality of DI water, gas, vacuum, compressed air, snorkels, exhaust systems for furnaces or other high-temperature equipment, specialized fume hoods, etc.; plan equipment and work station locations accordingly.

Move-in Routes for Large/ Heavy Lab Equipment – Check 1) elevator door dimensions and weight limitations (if applicable); 2) ceiling heights, corridor widths and door dimensions from loading dock to lab; plan safe, workable routes for movers to use.

Cleanliness and Condition – A space is not acceptable for your move-in until:

* + - Debris from construction or renovation is removed.
    - Materials, chemicals and waste from previous occupants are removed.
    - Surfaces and/or in situ equipment requiring decontamination have been decontaminated and results documented.
    - Floors, walls, surfaces are reasonably clean.

**Chemical Planning**

Transport of Chemicals by EHS (If relocating from another lab on campus) –

Contact EHS to set a date for chemical transport to new lab.

***NOTE: EHS will pick up chemicals to be moved for your lab from multiple locations in same building or nearby, and will then unload to benchtops in your new space for lab personnel to properly segregate, store, and manage chemicals.***

Compressed Gas Cylinders (If relocating from another lab on campus) --

Arrange vendor pickup of 1) empty gas cylinders, and 2) transport of non-empty gas cylinders to new lab prior to your move. Contact EHS if you have a cylinder with unknown contents.

Decontamination of Perchloric (or other) Chemical Fume Hoods --

Contact EHS for guidance; decontamination must occur prior to a move.

**Biosafety Planning**

If you will be occupying a lab for first time at VT, or moving a lab from another institution:

* + Contact the [VT IBC](https://ibc.researchcompliance.vt.edu/file/ibc-protocol-submission) and complete a protocol submission. ***NOTE: IBC approval must be received before beginning work with potentially infectious or genetically manipulated biological material.***
    - Ensure you have the required [Material Transfer Agreements](https://www.research.vt.edu/intellectual-property/material-transfer-agreements) in place (if applicable).

If moving to a different lab on campus, submit an IBC amendment for the new lab location.

Contact EHS for:

* + - Guidance on moving biological materials.
    - Guidance regarding 1) decontamination of biosafety cabinets to be moved and 2) certification of new or moved biosafety cabinets.

**Radioactive Materials (RAM) and X-ray Instrumentation Planning**

***Note:  When changes are considered for RAM and/or X-ray areas, the University Radiation Safety Officer (RSO) must be contacted before any actions are taken.***

☐   Submit a diagram of the new lab (with radioactive use space and proposed storage areas clearly marked) to the RSO.

☐   Request containers from RSO to pack radioactive items for move.   ***Note:  All equipment must be surveyed and documented free of contamination before moving.***  All such verified items can be moved by laboratory personnel.  Any items showing radiation contamination or containing RAM must be managed by the RSO.

☐   Arrange for RSO visit to review the new space for approval.  RSO will:

* provide appropriate signage
* Assist with the move of any contaminated items or those containing RAM to the new space.

☐  Notify the RSO of any relocation related to x-ray instruments (excluding those designated as portable by State guidelines).  This includes both diagnostic and analytical machines.  All x-ray equipment must be surveyed and certified after a move before use can resume.

**Pressure Vessels and Autoclaves**

Contact Risk Management at 231-7439 if autoclaves or pressure vessels will be relocated, or new ones will be installed. Risk Management is responsible for scheduling certifications.

**Laser Safety**

Contact EHS if lasers or UV sources will be relocated, or new ones will be installed.

**Old or Damaged Equipment**

Prior to the move, please schedule:

* Repair for any damaged equipment that will be moving with you.
* Transport for old equipment to [Surplus Property](https://www.procurement.vt.edu/surplusproperty.html). Do not leave damaged, obsolete, or otherwise unwanted items behind.

1. **DURING THE MOVE-IN EVENT**

* Keep aisles uncluttered and maintain 3 feet of clearance in all aisles.
* Maintain clear access to emergency equipment.
* Do not block emergency eyewashes or showers, or the locations of spill kits.
* Do not block access to fire extinguishers or other fire safety equipment.
* Remember ceiling clearance requirements (18”) when loading items onto shelves.
* Do not block electrical panels or electrical disconnects.
* Be sure required safety documentation, including SDSs (formerly MSDS), is accessible if needed.

**III. SETTING UP THE NEW LAB SPACE**

**Safety Management System**

Update any old SMS page(s) with new lab location and information.

**Signs and Labels**

Post signage for chemical, biological, radiological and/or physical hazards in the lab.

Ensure that refrigerators, incubators, etc. have all require labeling (*Biohazard, No Food/Drink, No*

*Flammable Storage*, etc.)

Before occupancy, designate at least one other emergency contact besides the Principal Investigator, then complete and post [emergency contact door signage](https://www.ehss.vt.edu/detail_pages/document_details.php?s_document_title=emergency+contact&document_id=250) that includes the following current information:

* + - contact numbers for named responsible parties for the lab
    - locations of emergency and safety-related documents in the lab

**Required Documents and Training**

Establish designated locations for SDSs, training records and required documents [Chemical Hygiene Plan/ Hazard Communication Plan, Lab-Specific Biosafety Manual (if applicable), SOPs, etc.], so they can easily be accessed if needed; ensure lab personnel are informed of document locations.

Update Biosafety Manual, Chemical Hygiene Plan or HazCom Plan, and any other required documentation to include pertinent information about the new lab, i.e., new locations for safety equipment, etc.

Recommendation: 1) register your new lab space in the [EHS Safety Management System (SMS](https://www.ehss.vt.edu/programs/chem_reg.php)), or 2) update your lab information (new location, changes in training requirements (if any), etc.) in the [EHS Safety Management System (SMS](https://www.ehss.vt.edu/programs/chem_reg.php))\* if your lab has already been entered in the SMS.

*\*The SMS is an online tool that helps you choose, assign and track training for lab personnel, and record your hazardous chemical, laser and nanomaterial registrations. It also provides a portal for requesting pickup of hazardous lab waste, and can serve as a repository for lab-specific documents.*

***New Principal Investigators: Within the SMS, you can use the Survey Tool (found under the “Tool” tab) for guidance on recommended training for lab personnel based on the hazards, equipment and tasks in your lab.***

**Hazardous Lab Waste**

Decide what waste containers will be required in the new lab and where they will be located.

Request containers from EHS, or purchase through your department.

Ensure that hazardous lab waste containers are appropriately labeled for their designated waste

streams.

**Emergency Planning**

Check with your department’s Building Emergency Coordinator to ensure that the Emergency

Action Plan for your building is updated regarding your new lab occupancy.

Review the locations of safety equipment in your new lab (emergency showers, eyewashes, fire extinguishers, etc.) with lab personnel.

Designate who is responsible for weekly eyewash checks and monthly fire extinguisher checks for your lab, and see that checks are initiated and documented.

Evaluate the need for spill kits (chemical, biological, RAM, if applicable) and first aid kits. Designate locations that will be visible and easily accessible. Communicate kit locations to lab personnel; review spill procedures with lab personnel.

Designate a storage area for personal protective equipment in the lab and communicate it to lab

personnel.

**Chemical Safety**

Use the Chemical Registration System in the SMS to update your inventory with changes to chemical quantities, etc. (See <https://www.ehss.vt.edu/programs/LMS/inventory_entry.php>).

Segregate chemicals by hazard class for storage. Alphabetical segregation solely does not ensure

safety.

Store liquid chemicals on lower shelves (below shoulder height); ensure that all chemical storage shelves can bear the weight load required of them before loading.

Designate and label your storage cabinets for corrosives specifically for acids or for bases. Inorganic and organic acids must be segregated in secondary containment within the acid cabinet.

Flammables must be stored in labeled flammable cabinets/ flammable-rated refrigerators. Storage of flammables outside of flammable cabinets, such as on the bench, must not exceed the amount that can be used in one day’s operation.

Store high hazard/ P-listed chemicals, carcinogens, toxins, etc. in secure locations.

Secure compressed gas cylinders as required; store cylinders or other high hazard materials well away from doors to hallways.

Segregate incompatible gases (such as oxidizers from flammables). Cylinders of oxidizers and fuel gases that are in storage (not in use) must be separated by at least 20 feet, or a noncombustible wall at least 5 feet high with at least a half-hour fire rating.   Information on compressed gas cylinder storage: <http://www.ehss.vt.edu/programs/CGC_storage.php>

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Establish specific work areas, engineering controls, waste disposal and emergency response for working in your new space with carcinogens, reproductive toxins, acutely toxic materials, controlled substances, chemicals with physical hazards, etc.

**Biological Safety/ Biosecurity**

Locate biosafety cabinets and centrifuges used with BSL2 materials away from main traffic areas, windows, HVAC ducts, etc. in the lab, if possible.

Ensure that equipment used with BSL2 materials has Biohazard labels.

Prior to any work with biological materials, provide appropriate disinfectant at the bench.

Locate biowaste and biosharps waste containers at or near point-of-use, and ensure that solid biowaste containers are lined with clear autoclave bags (BSL1) or orange autoclave bags (BSL2).

Secure by locking (or other approved method) any BSL2 materials stored in freezers, dewars, etc. that are located in publicly accessible corridors, storage areas, etc.

Establish the security practice of locking lab entry doors during nights/ weekends/ holidays when the lab will be unoccupied.