

MacAllister - SEEC



Move Coordinator Manual

MacAllister - SEEC Building

4001 Discovery Drive
Boulder, CO 80303

DRAFT

Move Coordinator Manual

Mac-SEEC Move Website:

<http://mac-seec.colorado.edu/intranet>

Username: SEEC

Password: pass4access

Transition Project Manager:

Toni Whitlock / Prestige Corporate Relocation

Office: (303) 469-5599

Cell: (720) 810-3235

twhitlock@prestige-move.com

TRANSITION PLAN to MacAllister – SEEC Buildings

OVERVIEW

This Transition Plan outlines the specific responsibilities and tasks that will be required prior to the moves from several buildings across the Campus, including RL-1, ARC, CIRES, Benson, the Engineering Center and various other Campus buildings, into the MacAllister-SEEC building. In order to ensure a smooth and efficient transition to the new facilities a Transition Team has been established that includes representation from various departments involved with these moves. The Transition Team has been charged with overseeing the transition to the MacAllister – SEEC buildings.

Toni Whitlock of Prestige Corporate Relocation has been designated as the MacAllister – SEEC Transition Manager. Other key personnel that will be essential to this transition are the Lab Move Coordinators that will be identified for each research lab that is moving.

This Transition Plan will also include activities required in order for lab and office occupants to turn their currently occupied space over for other uses.

PROCESS

Lab Move Coordinators

The Principal Investigators (PI) for each lab moving to the MacAllister - SEEC Buildings in the East Campus will be asked to assign a Lab Move Coordinator for their area. The Lab Move Coordinator will be the point of contact for the Transition Manager. There will be a series of on-going meetings with the Lab Move Coordinators to keep them informed of the move schedule and to gather necessary information from them.

Lab Move Coordinators will be responsible for compiling equipment lists, hazardous materials inventory lists, phone lists, room number information, key rosters, room layouts for existing furniture, etc. for their areas - all of which is explained in the Lab Move Coordinator Packet distributed to each Lab Move Coordinator prior to their move. Information and the necessary forms that will need to be filled out will also be available on the MacAllister - SEEC Buildings Move website at <http://mac-seec.colorado.edu/intranet> (username: SEEC; password: pass4access).

Move Data Packet

Lab Move Coordinators will be responsible for filling out and submitting a Move Data Packet for their areas that will be moving. The Move Data Packet includes the following:

- **Move Instructions**: Quick explanation of the forms included plus moving guidelines, checklists, and links to helpful websites.
- **Lab/Office Move Data Form**: Provides the Transition Manager with contact information, delivery locations for materials, general description of items moving.

- **Staff Roster:** List of people and/or equipment requiring telecom or network connection. This form helps Information Systems to disconnect and reconnect jacks, provide phone intercepts, telephone directory changes (if needed), and material management deliveries; and, is also used by Access Services and other support groups.
- **Lab Equipment Inventory:** Lists larger equipment (mostly for labs but can also be used for large items, sensitive equipment, etc.) including additional requirements that would be needed (i.e., water, gas, dedicated circuit, etc.). This form is then used to verify the infrastructure is in place prior to the move or to note specific move instructions.
- **Lab Equipment Label:** (2 per equipment item) the first equipment label is used in addition to the moving labels that will be affixed to all items moving. The second equipment label is to identify the new location of equipment at destination as well as to identify the location if work that may need to take place prior to the move (i.e., electrical outlets added or changed, etc.)

Transition Team

The Transition Team is responsible for covering all aspects of the move, including but not limited to, coordinating road closures and with other construction projects, access to elevators, distribution of keys, housekeeping schedules, expectations of the move, disposal of unwanted items, coordination of deliveries, etc. The Transition Team meets on a bi-weekly basis, with more frequent meetings as necessary, to determine the move logistics and building access plans. The Transition Team consists of the following representation:

INSTAAR Coordinator
 ATOC Coordinator
 ENVS Coordinator
 CIRES Coordinator
 RAESI Coordinator
 Environmental Engineering Coordinator
 Environmental Health & Safety
 Facilities Planning, Design and Construction
 Project Representative for the Office of the Vice Chancellor for Administration
 OIT – telephone, data and A/V
 Property Services
 University Risk Management
 Green Labs Program Coordinator
 Prestige Corporate Relocation

Moving Services

The CU Boulder Moving Service, Prestige Corporate Relocation, will be responsible for subcontracting with Clean Harbors, an authorized vendor under DOT, to move hazardous materials. Prestige will be responsible for providing materials necessary for the moves (carts, dollies, boxes, tape, labels, etc.), subcontracting with Clean Harbors to move hazardous materials, provide project management and supervisory staff during each move, and provide appropriate crews, equipment and trucks necessary for each move. Clean Harbors will be responsible for packing and shipping hazardous materials based on DOT regulations. Both companies will provide contingency plans to deal with unforeseen emergencies. Prior to a move, meetings will be held with the individual labs that are moving to include: specific information on moving instructions and expectations; what to pack; how to pack; how to switch parking; the green-tagging process; etc. ***Refer to Office Packing Guide, Lab Packing Guide and EH&S Guide for Laboratory Moves.***

It is anticipated there will be a number of different types of moves going on at any given time. Each type of move may occur separately or in combination with other moves, as required to continue a logical and effective move process. Not all moving phases may be needed for any individual group. Moves include:

- **Pre-moves**: Non essential contents from offices such as old files, notebooks, etc. that will not be needed for up to two weeks prior to an actual move date
- **Furniture**: Furniture from private offices such as file cabinets, bookcases, etc.
- **Contents**: Items such as files, desk contents, etc. that would be placed in boxes or on library carts. Would include glassware from labs that would be boxed
- **Office Equipment**: Items such as computers, fax machines, printers, typewriters, etc.
- **Vendor Moves**: Some equipment under warranty or a maintenance agreement may require that the vendor provide the relocation service or special packing materials. These moves include, but are not limited to copy machines, office equipment, lab equipment such as new freezers, microscopes, lasers, etc.
- **Lab Equipment**: Inventoried equipment such as centrifuges, freezers, refrigerators, etc. These are essential items that will need to be carefully set up and moved.
- **Hazardous Materials**: Chemicals, cleaning solvents, solutions, paints, etc. that will need to be inventoried for Clean Harbors to pack and ship.
- **Other Lab Materials**: Radioactive materials that will be moved by EH&S staff; biological materials that will be pack and moved inside of freezers by Prestige under a DOT special permit.

Emergency Plan

While an emergency plan will be in place for all lab moves, this section describes specific issues that are more likely to arise with laboratory moves.

Given the complexity, size, and years of research that will be moving to MacAllister - SEEC Building, as well as the ongoing campus construction and repairs, it is imperative that an emergency plan be established. It is our goal to move all equipment and contents in a safe and damage-free manner. Accordingly, to avoid loss of research due to freezers not working once they arrive or from vehicles breaking down in transit or office contents being lost, it is our goal to cover every type of misfortune. For laboratory moves, we will have one (1) back up emergency –80 freezers and one (1) back up emergency – 20 freezers to cover electrical issues or equipment failure. There will also be additional staff on-site and

available to cover elevator issues, electrical issues, etc. EH&S Emergency Response Team will be available to respond in the event of an in-route spill. Prestige and Clean Harbors will have their own emergency plan in addition to the internal plan.

Initial Remediation Plan

Labs are encouraged to start disposing of old, broken, outdated computers, hazardous materials, laboratory supplies, and equipment prior to their move to MacAllister - SEEC Buildings. All excess private office furniture will be listed by the design team for possible use by other building tenants that require office furniture. The sponsoring Department will be responsible for the removal of any remaining, non-moved items, trash, etc. before the vacated lab and office space can be turned over to backfill users and or to Facility Management for renovation/remodel work. Labs should submit the necessary paperwork for disposing of these items at least one (1) month prior to their move date. This will allow enough time for the items to be picked up either just prior or immediately following the move to the MacAllister - SEEC Buildings. Upon vacating the area, the space can then be turned over for a final cleaning and green tagging, when necessary.

ASSUMPTIONS

1. All moves will take place during the week, during normal business hours (7:30 a.m. to 5:00 p.m.). Due to the physical limitations of both campuses, there will be a limited amount of moving trucks that would be able to load and unload which will dictate how much we can move in one day. It is anticipated that the movement of equipment, contents, and furniture would be done on Tuesdays, Wednesdays, and Thursdays. Hazardous materials would be picked up and delivered on Mondays (when needed). Fridays would be left available as a floating day to deal with unforeseen issues and for special deliveries to the building. Areas that would not interfere with the moving of hazardous materials may also be moved on Mondays. The specific details will be finalized for each lab group once we are closer to that move. Pre-moves would be scheduled for areas that have archive files or equipment and contents that can move one to two weeks prior to their lab moving.
2. The project schedule for the MacAllister - SEEC Project calls for a start-up period from the time a Temporary Certificate of Occupancy is received until moves can occur. Receipt of the TCO for MacAllister is currently scheduled for early July 2014, with the first moves to start the week of July 27, 2014. Receipt of the TCO for the Lab Wing is currently scheduled for February 2016, with the first moves to start the week of February 15, 2016. The period before the start of moves will allow for internal groups (i.e., Information Technology Systems, Facilities Operations, Building Services, etc.) to gear up for the moves. This includes stocking restrooms, final balancing the building systems, setting equipment, internal training, cleaning floors, etc.
3. A Master Move Schedule will be developed based upon input from the Lab Move Coordinators, school semesters and breaks schedules, and the overall transition schedule. We will do our best to accommodate all priorities and preferred dates. Conflicts will be resolved by the Transition Team.
4. Any area moving with hazardous materials or equipment will be shut down for approximately one week/five (5) business days for the move itself. There are a number of steps that must be done prior to these areas moving. The following is an estimated timeline for the pre-move process and Environmental Health & Safety's responsibilities. **This does not include the time it would take for lab groups to pack up their lab area, offices or other responsibilities. Refer to Office Packing Guide, Lab Packing, and EH&S Guide for Laboratory Moves.**

- **At least 1 MONTH PRIOR to move week:** Labs must perform a chemical inventory and ensure that any unknown substances are identified and/or disposed of through EH&S. Also, work with EH&S to dispose of excess and/or expired chemicals.
- **2 WEEKS PRIOR to move week:** No radioactive materials (RAM) will be delivered to applicable labs. Labs should stop working with radioactive materials.
- **1 WEEK PRIOR to move week:** Labs must verify that all radioactive material is accounted for, either in wastes to dispose, or of materials to be moved. Labs should dispose of old/decayed materials. Submit all radioactive waste disposal requests to EH&S.
- **2 Working Days prior to move week:** All waste must be out of the lab by this day. Biological wastes, chemical waste, and radioactive waste will be picked up by EH&S.

All stock vials and other inventory of RAM must be ready to move and be fully-coordinated with EH&S. The actual day of RAM movement will be determined on a case-by-case basis for each lab.

All swipes and surveys for RAM must be completed and the results recorded in the laboratory's Radiation Safety Survey Log.

Decontamination of Biosafety cabinets must occur by this day. All BSCs to be moved must also have the HEPA filter decontaminated by an outside vendor prior to the move.

Liquid Scintillation counters, BSCs and other specialized equipment must be ready for "green-tag" by the end of this business day if not earlier.

- **1 Working Day prior to move week:** All work surfaces and equipment must be clean and free of contamination. Any missed chemical wastes or newly generated wastes will be picked up.

Green-tags indicating proper de-contamination and/or disinfection (if necessary) must be in place for all laboratory equipment and supplies.

- **Day 1 of move week:** Chemical lab packing by Clean Harbors will begin. Lab staff will need to have all chemicals out of cabinets, shelves, etc. and placed in a centralized, safe area within the lab. All chemicals should be segregated by hazard to ensure separation of non-compatible chemicals.

Any missed chemical wastes or newly generated wastes will be picked up by EH&S Hazardous Waste group.

Finalize any missed green-tags.

- **Day 2 of move week:** Lab packing of chemicals.

Finalize any missed green-tags.

Chemicals moved to staging area in the new building.

Lab contents and equipment moved to final location in the new building.

- **Day 3 of move week:** Lab contents and equipment moved to final location in new building.

Dispose of any “found” hazardous materials.

- **Day 4 of move week:** Lab contents and equipment moved to final location in new building.

- **Day 5 of move week:** Once a current lab is emptied, the Final Lab Clearance Checklist can be completed. Lab Move Coordinators or PIs must make arrangements for this action with EH&S and the Department Liaison/Building Proctor immediately following their lab move.

Chemicals moved to staging area(s) in the new building can be picked up by lab personnel.

- **Post move – Day 1:** Set up and certify any equipment requiring certification, including Biosafety cabinets, etc. Chemical fume hoods will be certified as part of the construction process and will be ready for use by the labs.

- **Post move – Day 2:** RAM will be delivered at some point in time after this date.

5. Departments must submit the necessary paperwork for disposal of any unwanted furniture, computers, or equipment two (2) months prior to their scheduled move date. It will be the Department’s responsibility to submit the paperwork so these items are not left behind and are disposed of properly in accordance with UCB and State of Colorado requirements. Departments will also be responsible for picking up all trash from cabinets, counter tops, floor, etc so the space is left in an acceptable, move-in condition.

RESPONSIBILITIES

These responsibilities are for the different departments that are or will be affected by the transition to MacAllister - SEEC Buildings. This is a working document and may be updated as we get closer to the moves.

Facility Management

The Facility Management Project Manager and the Representative from the Office of the Vice Chancellor for Administration will oversee the entire transition to the MacAllister - SEEC Buildings. The Transition Manager, Toni Whitlock of Prestige Corporate Relocation will be responsible for meeting with the labs that are moving (through the Lab Move Coordinators) and insuring the necessary information is received and communicated. The day-to-day move operations will be handled by the Transition Manager. The Transition Manager will be on-site throughout the moves and will be available by cell phones and in direct connection with the movers and support staff, as well as the labs that are moving.

FM will conduct orientations on user-controlled operation of HVAC and lighting systems for groups moving in. Orientations will be scheduled on the master move schedule. Orientations of the new building’s security system are encouraged. For those that need pre-move walking orientations of security systems, please contact the Transition Team for information.

Website - We will continue to update the intranet website: <http://mac-seec.colorado.edu/intranet> (username: SEEC; password: pass4access). The website will provide access to the necessary forms

and information that is relevant to the upcoming moves. The website will also update the master move schedule, as necessary.

Initial Remediation Plan – The Transition Manager will work with the Lab Move Coordinators and The Transition Team when areas are being vacated to make sure no furniture, computers, or equipment will be left behind and the area is ready to be cleaned.

Electronic Security and Access Control

- **120+ days before the move:** Access Services will meet with representatives of the SEEC Executive Committee to develop access control mapping, clearances and keying systems for each building area. The access control mapping has been based on data provided by individual labs and Department Coordinators. This mapping is used to program the security system for card (Buff Card and/or Proximity Card) access, as well as individual room keys for each area of the building.
- **Move day:** Keys and card activation will be available on move day. The Lab Coordinator for each individual lab will pick up the applicable keys at the designated MacAllister - SEEC Building administration offices on the day of the move, and distribute them to lab personnel. Access cards will also be activated at that time.

Keys from current locations will need to be returned (unless limited personnel still require access). Upon request, approximately one (1) month prior to a lab's move date, the Lab Move Coordinator can receive a report of each employee and what keys they currently have. Keys will need to be turned-in (in person) to the Access Services located at Folsom Stadium, Gate 8, Room 1B11 (lower level). This should be done the week of the move and no later than three (3) days after a lab moves. There will be a lost key fee for keys not returned.

Environmental Health and Safety

For information of tasks PRIOR to your move, please refer to Section 4 of this document under the Assumptions, as well as EH&S Guide for Laboratory Moves. For additional information on services provided by Environmental Health & Safety, please refer to the EH&S web page: www.colorado.edu/ehs/ or contact our main desk at (303) 492-6025.

Biosafety: All Principal Investigators (PI) must ensure that Biosafety cabinets within their areas are recertified upon relocation. Recertification must be completed before the BSC is used in the new lab space. A copy of the certification must be sent to the EH&S Biosafety office. For more information, contact Mark Lapham, (303) 492-8531.

Radiation Safety: All PIs must ensure that their laboratory is authorized and ready to receive radioactive materials, including but not limited to appropriate licensing, contamination survey maps, equipment placement, and use and waste area(s) identified prior to the delivery of any stock vial materials by EH&S. For further information, please contact the Radiation Safety office at hpl@colorado.edu or (303) 492-6523.

Chemical Compliance: Once the laboratory has relocated to the MacAllister - SEEC Buildings each laboratory will need to unpack their chemical inventory and place the chemicals (segregated by compatibility) into the appropriate storage areas within the lab. The procurement of chemicals and the chemical inventory for each lab must be coordinated through the SBB chemical storeroom, using the centralized database that will be created for the building.

Hazardous Materials/Wastes: After a lab has relocated to the MacAllister - SEEC Buildings, chemical waste pick up will be conducted in a similar manner as the main campus. A suitable area within each lab must be selected for designation as a Satellite Accumulation Area (SAA). Proper signage must be displayed at each SAA, along with the weekly inspection log: http://www.colorado.edu/ehs/pdf/SAA_Log.pdf. The locations of each SAA must be recorded with EH&S. An EH&S representative will visit each lab shortly after the move has been completed to record SAA locations and room occupancy information. Complete hazardous material/waste tags and submit the top copies through campus mail to 413 UCB.

Green Tagging: Laboratory equipment and supplies to be moved must be decontaminated and/or disinfected by laboratory personnel prior to the move date. Green tags (available from EH&S) must be completed and signed by laboratory personnel certifying that proper decontamination and/or disinfection (if necessary) has been completed. Green tags must be attached to all laboratory equipment and supplies before they can be moved, to ensure safety.

Equipment Disposal: Refer to the Property Services website at <https://www.colorado.edu/fm/services/property-disposal-0> for instructions to arrange pickup and disposal of all surplus laboratory equipment and electronics. Each department has a liaison to Property Services that is familiar with the equipment disposal procedures – please coordinate with this individual in your department to dispose of your equipment. An Equipment Disposal/Resale Form and decontamination procedures listed within must be completed if the laboratory equipment or electronics ever were in contact with, or may be contaminated with chemicals, radioactive, or infectious materials. Decontamination must be performed by the researchers prior to submittal of the completed form to Property Services.

Facility Maintenance – Staff will be available at both campuses during the moves to assist with electrical issues, elevator issues, etc. Any building maintenance issues should be reported through the Facility Management Service Center at x25522.

Facilities Construction Services – The Project Manager and the Project Representative will review any lab equipment for special requirements and electrical needs and will assist throughout the move process for lab moves.

Housekeeping – Building Services will be informed by the Transition Team when groups will be moving. They will schedule a final cleaning of the old area once it is vacated and will set up housekeeping services at the new location. Stocking of bathrooms and common areas, waxing floors, etc. will be done during the building start-up period prior to the moves.

Recycling - Lab Coordinators should request recycling and trash bins at least ten (10) days prior to a move by contacting Megan Foster at 2-5321. The recycling and trash bins to be placed in the vicinity of areas moving.

Materials Management – All deliveries for the MacAllister - SEEC Buildings will be made to the dock of the building. No deliveries will be made directly to the ordering lab. This includes General Air, Corporate Express, Fed Ex, UPS deliveries, etc. Individual labs/users will be contacted to pick up the delivery at the dock. Vendors who have assigned delivery persons to the UCB campus may be directed by the dock manager to proceed directly to the lab (on a case-by-case basis).

Roads, Parking Lots & Grounds – Staff will be available at both campuses during the moves to assist with blocking spaces for moving trucks, etc.

Fire and Life Safety: UCB Fire and Life Safety staffs are the primary contact for fire prevention, life safety, and other fire-related concerns. While the local fire department responds to emergencies, the University has authority to order compliance with fire codes and Campus Fire Safety Policies.

FOR EMERGENCIES, DIAL 9-1-1 Should you witness or discover a fire or a spill release of hazardous materials, evacuate to a safe area and then dial 9-1-1 (University Police from any University phone). Please remain available to responders (stay in a safe location) in the event they need further information. The Fire and Life Safety staff will assist in any fire-related safety issues or burning odor complaints.

“Fire Prevention” is aimed at reducing the potential for a fire to occur, and limiting the effects on people and property when a fire does occur. “Life Safety” is the portion of the fire codes that deals with exiting and egress issues (such as exit lights, clearance of corridors, etc.)

- All persons must follow emergency orders during fire alarms. No one shall be prevented from evacuating, and persons who do evacuate shall not be subject to discipline or harassment.
- Do not place permanent items in the exit corridor/hallway without first contacting the Fire and Life Safety Officer.
- Do not block fire extinguishers, eyewash/shower stations, or electrical panels. Tampering with fire alarms or fire protection devices is a criminal offense.
- Limits on the quantities and storage of flammable liquids are noted on the campus Flammable Liquids Policy (see our website).
- Compressed gas cylinders must be secured from falling.
- You must be physically in attendance during heating operations (including heating food, use of Bunsen burners, etc.)

A variety of other policies are mandated. Refer to Facility Management –Fire and Life Safety website at <http://www.colorado.edu/firelifesafety/>

IT Services (Customer Service, Telecommunications, Network Services)

IT Services will meet with representatives of the SEEC Executive Committee to develop a master schedule for the building. The master schedule has been based on data provided by individual labs and Department Coordinators. All features and functionality will remain the same, as well as existing individual telephone numbers.

- **Telephones:** If you are moving, please **leave** your old telephones behind. A new telephone or your existing telephone will be installed at your new location based in the designated location. This new telephone will be ready on your move date. Telecom will arrange for the pick-up of old telephones at the current location(s).
- **UCB Voice Mail:** Voice mail settings and your individual greeting will remain as currently configured.
- **Fax Machines:** The new location may require a new fax number. If this is the case, your old fax number can be forwarded to your new fax number for 90 days.

- **Wireless:** Wireless service is available throughout the MacAllister - SEEC Buildings. Please do not bring your own wireless device(s). IT Services is the only source for deploying wireless services to our campuses. This is due to campus security concerns, channel overlaps, etc. Contact the Help Desk if you have any wireless questions, concerns and/or needs.
- **Network Services** – Printers and servers may need new IP addresses. The IT Services will assist you with this issue, and will provide you with your new IP numbers.

Mail Services: Most Departments will retain their existing Mail Stop address; but, Departments that are currently located in several on-Campus buildings and have been issued multiple Mail Stop addresses may require a new Mail Stop address for consolidated Departmental delivery to the MacAllister – SEEC Buildings. All Departments should contact Mailing Services to verify their Mail Stop address for the MacAllister – SEEC Buildings. Mail Services contacts are: Bob Moon at X22444 or Jack Brubaker at X27209.

Parking Services

Parking Services will assist with identifying and arranging use of parking lots and staging areas at both campuses during the moves. They will approve and coordinate necessary street closures on the main campus. They will provide necessary information on other road closures or construction projects that may affect the route or staging during the moves.

A limited number of non-permit spaces will be available for use by lab personnel to assist in the moving process. The use of all other parking spaces at the MacAllister - SEEC Buildings will require a separate permit.

Contact Parking Services at X27384 or check out their website on the CU-Connect website for additional information and/or to obtain a new or exchanged parking permit for the MacAllister – SEEC parking lots.

- When disconnecting your old data processing equipment (computers, servers, printers, etc.), please leave the old cables. You will receive new cables at your new location.

ASSET MANAGEMENT

Departments are strongly encouraged to review their areas and identify Equipment and Furniture for Disposal that will not be moved to the MacAllister - SEEC Buildings. By starting this process early, the Property Disposal system will not be overloaded with requests prior to the move. All equipment, regardless of initial purchase price, computers and their associated hardware, and furniture must receive approval for disposal. It is anticipated that furniture in good condition will be available for reuse.

Refer to the Property Services website at: <https://www.colorado.edu/fm/distribution-center/property-services> for instructions to arrange pickup and disposal of all surplus laboratory equipment and electronics. Each department has a liaison to Property Services that is familiar with the equipment disposal procedures – please coordinate with this individual in your department to dispose of your equipment. An Equipment Disposal/Resale Form and decontamination procedures listed within must be completed if the laboratory equipment or electronics ever were in contact with, or may be contaminated

with chemicals, radioactive, or infectious materials. Decontamination must be performed by the researchers prior to submittal of the completed form to Property Services.

If there are any questions, please call Jack Brubaker x27207.

UNIVERSITY POLICE/PARKING SERVICES

The University Police and/or Parking Services will secure parking and staging areas at both campuses for moving trucks.

UNIVERSITY RISK MANAGEMENT

The University's property/transit insurance does not provide coverage for property/equipment that is moved in an employee's personal vehicle. Therefore any loss or damage to the University property/equipment that occurs while in transit in an employee's personal vehicle or as a result of the transit will not be covered, and the vehicle owner's personal automobile insurance or the employee's department will be responsible for the replacement of the property. The University's insurance also does not provide physical damage or liability coverage for personal vehicles regardless if the vehicle is being used for official University business.

The University's property insurance does not provide coverage for personal property. It only provides coverage for property that is owned, rented, and/or leased by the University.

PROTECT YOUR ASSETS: University Risk Management strongly recommends that appropriate personnel identify and state an approximate value for the contents of each freezer which is to be moved. If damage or destruction to the contents of the freezer occurs as a result of the move, the department bears the burden of establishing the extent and value of the loss if a claim is filed. Thus, the recommended identification of the contents and their value will significantly contribute to achieving a claim resolution intended to Protect Your Assets. For assistance and any questions related to this recommendation, please contact Carolyn Peet of University Risk Management regarding any insurance questions related to the move at (303) 735-5900.

Departmental Move Coordinator Responsibilities

As the Departmental Move Coordinator for your area, you are critical to the successful relocation of your department/division including personnel, belongings, equipment, hazardous materials, and files. This includes both packing of your present location and setup of the new location. The following outline defines some key responsibilities. Since each department/division is different, your responsibilities may vary from this list. Please review any questions with Toni Whitlock, Prestige Corporate Relocation Transition Manager; (720) 810-3235; twhitlock@prestige-move.com

Prior to the Move Day:

Liaison with the Transition Manager:

- Attend all move coordination meetings.
- Forward all questions from your department/division to the Transition Manager.
- Disseminate information to your department that the Transition Manager has provided you.
- Assist with master move schedule and determining when specific areas can move.
- Ensure high dollar items are identified to Transition Manager.
- Identify “lost and found” area at the new location.

Compiling Essential Information:

Forms are provided in the Move Coordinator Book to provide the following information:

- Current location information to include room numbers, telephone and jack numbers for each employee at their existing location.
- Destination location information to include room numbers, telephone and jack numbers for each employee at their new location.
- Equipment inventory – labs, offices and classrooms to include descriptions, power requirements, etc.
- Hazardous materials inventory – including amount, description, location, etc.
- Furniture inventory of items that would be moved.
- Furniture layouts for offices indicating how furniture should be arranged.
- Oversee placement of all items that would move.
- Identify items that require special vendors to move – items with service agreements, under warranty, etc.
- Coordinate with special vendors on instructions, costs, etc.

Move Day:

- Assign appropriate personnel to be on-site to answer questions.
- Verify all items were moved.

After the Move:

- Collect troubleshooting reports and forward to appropriate parties (all reports that cannot be fixed within the department should be forwarded to the Transition Manager).
- Assist personnel with 'lost and found'
- Communicate necessary issues to Transition Manager.
- Ensure completion of post-move clean out phase activities, which includes removal of all furniture and equipment, green tagging necessary areas, removal of trash, etc. so that , the vacated offices and lab areas can be cleaned by Housekeeping and turned over to back-fill occupants and/or for Facilities Management remodeling.

Lab Move Coordinator Responsibilities

As the Lab Move Coordinator for your area, you will work closely with your Departmental Move Coordinator (DMC) to move your lab to the SEEC Lab Wing. Lab Move coordinators have specific responsibilities related to the operations and the specific needs of moving a laboratory. The Lab Move Coordinator must be familiar with ALL operations in the lab (equipment, chemicals, radiations, etc). This outline is provided to help define some key responsibilities. Since each lab is different, your area of responsibility may vary. Please review any regarding these responsibilities with Toni Whitlock, Prestige Corporate Relocation Transition Manager; (720) 810-3235; twhitlock@prestige-move.com

General Lab Responsibilities:

- Assist the DMC with laboratory equipment lists and power requirements. This information is key to getting all equipment up and running as quickly as possible.
- Assist the DMC with vendor related move needs (equipment under warranty, maintenance agreements, etc. that will require the vendor to prep and/or move the equipment and re-commission/setup after the move).
- Go through lab equipment and determine if any is surplus; if so submit the necessary paperwork for Property Services.
- Work with EH&S to properly decontaminate and green tag lab equipment that will be moving.
- Determine equipment label locations at the new lab.
- Return large compressed gas cylinders and order new ones for the new lab.
- Inform lab personnel regarding lab packing procedures, green tagging equipment, etc.

Coordination with EH&S:

Refer to the attached EH&S Guide for Lab Moves, specifically noting the requirements for listing, disposing of, and readying for move, the following:

Hazardous Chemicals
Radiation Containing Materials
Bio Materials
Bio Wastes

Purging and Discarding Files, Equipment, and Hazardous Materials:

- Encourage personnel to purge/recycle/shred existing files, documents, etc.
- Encourage personnel to properly discard old, unused equipment.
- Encourage personnel to properly discard old, unused hazardous materials.
- Arrange confidential shredding services through outside vendor.

Liaison with Transition Manager:

- Ensure all personnel receive moving instructions, labels, boxes, and other packing materials and they attend a department move meeting.
- Perform or delegate actual packing of all office contents, files, glassware, and common resources.
- Ensure all personnel are properly packed and signed out by the appropriate deadline before the move.
- Review all areas the day before the move to ensure everything is properly packed and labeled.
- Provide general information regarding the new site as necessary.
- Ensure all personal belongings go home with employees.

Move Day:

- Assign appropriate personnel to be on-site at the existing location to assist with items that need to be moved and answer questions.
- Assign appropriate personnel to be on-site at the new location to assist with placement of the items.
- Verify all items were moved.
- Verify placement of lab and office equipment.
- Verify placement of files and storage contents.

Sign Out:

- Check all areas under your responsibility for proper packing and labeling.
- Ensure items that are not labeled to be moved have been (or will be) disposed of properly.
- Ensure all staff have turned in old keys, picked up new keys, traded in parking cards, etc.

After the Move:

- Collect troubleshooting reports and forward to appropriate parties (all reports that cannot be fixed within the department should be forwarded to the Transition Manager).
- Assist personnel with 'lost and found'
- Communicate necessary issues to the DCM.

Move Data Packet

Instructions

This Excel workbook contains four (4) documents that are required for a lab relocation to the MacAllister - SEEC Building.

These documents are found at the bottom of this sheet by clicking on the tabs, as follows:

- * Lab/Office Move Data
- *Staff Roster
- * Lab Equipment Inventory
- *Lab Equipment Label

1. Download and complete the Move Data Form, Staff Roster and Lab Equipment Inventory (if needed) spreadsheets. Email the completed workbook to: Chris Ewing (john.ewing@colorado.edu)
2. Please submit a revised form for any changes before move-in day.

Checklist

- Complete and electronically submit all Move Data Packet spreadsheets.
 - Contact Parking Services to arrange for permanent employee parking at the new building.
 - Order stationary, business cards, etc. with the new information, as applicable.
 - Notify vendors who deliver or provide repair on you equipment or office products.
 - Contact vendors for items you have under warranty or are leased. They may want to move these items themselves.
 - Update all billing addresses.
- Required Delivery Addresses:**
- If you have anything delivered to the new building, including FedEx and UPS, it must be addressed to the building (MacAllister, 4001 Discovery Ave., Boulder, CO. 80303)
 - If you have anything delivered using USPS, it must be addressed to the Campus with your new campus mail code .

Lab/Office Move Data

Lab Name/P.I. _____

Move Coordinator/Lab Contact

Name _____

Phone _____

Cell _____

email _____

Moving from: _____

(list building, and all lab/office room numbers)

Moving to: _____

(list all lab/office rooms numbers)

Place Prestige Label here
to affix this sheet to equipment

Equipment Number	#1
PI Last Name	Smith
Equipment Description	-80
Voltage	230
Amps	15.2
Room No. of New Location	A250

Print 2 of these labels, with appropriate equipment data, for each equipment item. Place one label on the equipment being moved, and place the other at the exact new location.



Guide for Laboratory Moves





Environmental Health and Safety (EH&S)

Department Contacts

[Brandon Boger](#), Director, 303-492-6025

[Mark Lapham](#), Environmental Compliance Manager, 303-492-8531

[Michelle Law](#), Radiation Safety Officer, 303-492-2622

[Holly Gates-Mayer](#), Biosafety Officer, 303-492-8683

[Chris Quattrociocchi](#), Hazardous Materials / Waste Manager, 303-492-6390

[Tim Lockhart](#), Asbestos & Lead Program Manager, 303-492-6026

Environmental Health and Safety Center
1000 Regent Drive (east of the Engineering Center)
Campus Mail: 413 UCB

Voice: 303-492-6025

Fax: 303-492-2854

Email: ehs@colorado.edu

Website: <http://ehs.colorado.edu/>

Other Important Contact Information

Equipment Disposal

[Property Services](#), 303-492-6524

Compressed Gas Cylinders

[Distribution Services](#), 303-492-6322

Building Operations and Maintenance

[Facilities Management Service Desk](#), 303-492-5522

Sustainable Laboratory Initiatives

[CU Green Labs](#), 303-492-8308

CU Recycling Services

[Environmental Center](#), 303-492-8308



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I. INTRODUCTION

This guidance is intended for use by all principal investigators, laboratory staff and department administrators as a guide for the required steps to move laboratories to new locations.

Laboratories are complex and difficult to move. There are many issues to consider when moving laboratories that are not encountered when moving office or residential spaces. Movement of campus laboratories will tax the resources of all campus departments involved with assisting the movement of these laboratories.

Please read through this guidance well in advance of your laboratory move and contact EH&S personnel listed above if you need clarification or have any questions about what will be needed to move your laboratory.

The Environmental Health and Safety department's goal is to provide services to the laboratories that are moving as quickly and efficiently as possible, but please be aware that our resources are limited. The sooner we can begin to help you with your move, the better. If you are reading this guide, we are ready to help you now in preparing for your move.

II. PREPARING TO MOVE

Laboratory staff should begin preparing for the relocation of their laboratory at least three months in advance of the move date. This will facilitate the relocation and transfer of the laboratory's equipment and materials.

An up-to-date chemical inventory is recommended to prepare for this move. A general move contractor with a qualified chemical lab-packing contractor (LPC) will package and transport all hazardous and non-hazardous chemical reagents. Radioactive materials will be moved by the EH&S Radiation Safety group. Biological materials will be transported inside freezers under certain conditions and following procedures that will be outlined later in this document.

The proper procedures for moving chemical, radioactive, and biological materials will be outlined below. Moving hazardous materials without following the stringent regulatory requirements is both dangerous and illegal, and will not be permitted. Individual researchers will not move any hazardous materials on their own (with the exception of controlled substances as applicable).

In laboratories where chemical, infectious, or radioactive materials have been used, the departing laboratory staff is responsible for ensuring that all laboratory surfaces and equipment have been properly disinfected or decontaminated. Laboratory staff that share space with other laboratory groups should carefully survey any shared spaces and areas in order to locate and appropriately handle and/or dispose of their hazardous materials. Final clearance of the vacated lab space(s) will be coordinated with EH&S staff.



III. EQUIPMENT AND SUPPLIES

A. Green Tags

The move contractor will provide move stickers to ensure the proper movement and correct placement of all office and laboratory items in the new location. This sticker will note the room number and location that each box or item will be moved to. In addition to a move sticker, each item coming from laboratory areas must also be marked as ready for safe movement – this will be accomplished with the use of a separate Green Tag that will also be applied to each box or item coming from laboratory areas.

By attaching a Green Tag (provided by EH&S) to a piece of laboratory equipment or box of lab supplies, the lab personnel are ensuring that the item(s) are not contaminated with any hazardous materials (chemical/biological/radioactive) and the item(s) can be safely handled and moved by the Contractors. Green Tags must be filled out by lab personnel and attached to all pieces of lab equipment and boxes of lab supplies that are moving to the new location.

Green Tags do **not** need to be attached to containers of chemicals or other hazardous materials (as these will be handled separately from lab equipment). Also, Green Tags do **not** need to be used for office areas. For surplus equipment that requires disposal (rather than being moved to the new location), complete a Property Services [Equipment Disposal / Resale Form](#).

B. Decommissioning and Decontamination

All laboratory equipment and supplies being disposed of or moved must be decommissioned and disinfected/decontaminated by laboratory personnel prior to the move. Refer to the related EH&S guidance documents: “Decontamination Procedures for Laboratory Equipment” (Appendix 1) and “Moving Lab Equipment and Supplies” (Appendix 2) for guidance on how to prepare and box up your lab equipment and supplies for the move contractor.

Commercial move personnel and CU-Boulder facilities management staff are not permitted to move any equipment or supplies in or out of a laboratory, or clean a laboratory until the items and/or laboratory have been properly cleared of hazardous materials, disinfected/decontaminated, and green-tagged.

This requires cleaning and decommissioning of the equipment and laboratories by laboratory staff in conjunction with guidance from EH&S staff. Once laboratory personnel complete cleaning/disinfection or decontamination of lab equipment, they will post green-tags issued by EH&S on the laboratory equipment.

Examples of items to clean or decontaminate include:

Incubators	Glassware
Centrifuges	Carts, Water Baths, Sample Holders
Liquid Scintillation Counters	Refrigerators, Freezers
Gamma Well Counters	Waste Containers
Chemical Fume Hoods	Pipette Washers
Biosafety Cabinets	Acid Baths
Fume Hoods	Bench Tops, Sinks, Shelves, Cabinets



C. General Equipment Information

The following laboratory equipment needs specific attention prior to being shipped:

1. Refrigerators and Freezers – consult “Moving Refrigerators and Freezers” (Appendix 3) and “Moving Biological Agents and Materials” (Appendix 4).
2. Remove Mercury Thermometers – from heating blocks, ovens, refrigerators, freezers, incubators, water baths and other equipment. Mercury-containing items must be shipped by the chemical lab-packing contractor (LPC).
3. HPLC – drain solvents from both supply and drain lines.
4. Centrifuges – remove tubes holding liquids from rotors. Remove rotors from centrifuges.
5. Peptide Synthesizers – drain solvents from both supply and drain lines.
6. Liquid Scintillation Counters – consult “Moving Radioactive Materials” (Appendix 5).

D. Asbestos-Related Issues

Some laboratory equipment could be directly attached or secured to surfaces such as lab bench tops, room walls, or fume hood work surfaces or sidewalls. It is possible that these types of surfaces can contain asbestos, and care must be taken to avoid potential disturbance of asbestos-containing materials. Before any equipment is detached or removed from work surfaces, the Asbestos Unit of EH&S must first evaluate the surface to confirm the presence or absence of asbestos. Coordinate these activities through your departmental move coordinator and the [EH&S Asbestos Manager](#) (303-492-6026).

Some older lab equipment can also contain asbestos material, such as ovens (gaskets and liner materials, heat-protective gloves, Bunsen burner pads, etc.). For disposal of these types of materials, please contact the [EH&S Asbestos Manager](#) for guidance (303-492-6026).

E. Biological-Related Issues

Lab equipment or surfaces contaminated or potentially contaminated with infectious or biohazardous materials require cleaning with an appropriate disinfectant. This disinfectant must be specifically effective for the contaminant(s). This includes, but is not limited to, potential contamination from: human blood, bodily fluids, tissues and cell lines (i.e. HEK 393, HeLa, etc.); infectious agents, including human or animal cell culture materials that have been infected; and infectious stocks or cultures. Information on appropriate disinfectants is available from the [Biosafety Officer](#) (303-492-8683) and at [Disinfectants and Sterilization Methods](#).

Procedures for the disposal or transport of biological agents and materials contained in ULT freezers and other freezers and refrigerators, as well as procedures for the cleaning, transport, and disposal of biosafety cabinets may be found in the related EH&S guidance document, “Moving Biological Agents and Materials” (Appendix 4).

F. Chemical-Related Issues

Research equipment or laboratory surfaces contaminated with toxic, corrosive, carcinogenic or mutagenic chemicals require adequate cleaning with an appropriate cleaning solution. For most chemicals, scrubbing with a laboratory detergent (Alconox or equivalent) and water should be adequate to remove the chemical contamination. Contact EH&S (303-492-6025) for cleaning



procedures of materials exhibiting extreme or unusually dangerous hazards. Most used cleaning solutions can be drain disposed; however, cleaning solutions used to decontaminate grossly-contaminated equipment must be saved and disposed of as hazardous waste through the EH&S hazardous materials program.

G. Radioactive-Related Issues

Before decommissioning, equipment that is potentially contaminated with radioactive material must be surveyed with an appropriate portable detection instrument **and** a smear survey counted in a Liquid Scintillation Counter or Gamma Counter. The results of these surveys must be documented using the EH&S Green Tag.

Once departing laboratory personnel complete the necessary decontamination of RAM-equipment and surfaces, complete the Green Tags for those items. For more information on green-tagging for equipment that is potentially contaminated with radioactive material, please consult the “Moving Radioactive Materials” (Appendix 5). Contact [Radiation Safety](#) at 303-492-6523 for assistance.

H. Surplus Equipment

Refer to the [Property Services website](#) for instructions to arrange pick-up and disposal of all surplus laboratory equipment and electronics. Each department has a liaison to Property Services that is familiar with the equipment disposal procedures – please coordinate with this individual in your department to dispose of your equipment.

An [Equipment Disposal / Resale Form](#) and decontamination procedures listed within must be completed if the laboratory equipment or electronics ever were in contact with, or may be contaminated with chemicals, radioactive, or infectious materials. Decontamination must be performed by the researchers prior to submittal of the completed form to Property Services.

Be aware that mercury switches, mercury thermometers, radioactive sources, and chemicals must be removed from all equipment before disposal. Contact the [Hazardous Materials / Waste Group](#) at 303-492-7845 or [Radiation Safety](#) at 303-492-6523 for assistance.

IV. HAZARDOUS MATERIALS

The movement of research laboratories is a complicated multi-step process that requires diligence from all involved to ensure the safe movement of hazardous materials. The identification of the hazardous materials (biological, chemical and/or radiological) in the laboratory is required beforehand, to make appropriate arrangements for moving those materials.

Hazardous materials include:

- Many **biological materials** (cultures and stocks of infectious agents; human and animal cell cultures, preserved tissues and specimens; biological wastes)
- All **chemicals** (flammable, reactive, corrosive, oxidizers, toxic materials, etc.)
- All **radioactive materials** (sealed and unsealed sources, x-ray machines)
- All **mixed** hazardous wastes (mixture of radioactive and chemical wastes)



A. Biological Materials and Infectious Agents

1. Cultures and Stocks of Infectious Materials

All infectious materials are subject to the requirements of the DOT when being moved or shipped. Infectious materials are classified as Category A (Appendix 6) or Category B. Additional information may be found in the related EH&S guidance document, “Moving Biological Agents and Materials” (Appendix 4).

Category A infectious substances are subject to more stringent regulation when being shipped, along with the necessary packaging, labels, markings, and related paperwork.

Category A infectious substances include, but are not limited to:

All cultures or stocks of [Risk Group 3 or 4 infectious agents](#), to include HIV cultures, *M. tuberculosis* cultures,

All cultures or stocks of [Select Agents infectious agents](#) (Appendix 7),

And any cultures or stocks of certain RG 2 agents:

Verotoxigenic strains of *E. coli*

Clostridium botulinum

S. dysenteriae, type 1

Avian paramyxovirus Type 1—Velogenic Newcastle disease virus

Eastern, Western and Venezuelan equine encephalitis virus

Polio virus

Rabies virus and other lyssaviruses

Vesicular stomatitis virus

Any questions on moving stocks and cultures of infectious agents should be directed to the [Biosafety Officer](#) (303-492-8683) for further information and assistance.

Category B covers all other infectious materials, typically stocks and cultures of [all other RG 2 organisms](#). This includes all human materials (blood, blood products, bodily fluids, tissues, and cell lines) and animal materials (blood, blood products, bodily fluids, tissues, and cell lines) known or suspected to be infected with a RG2 agent.

Exempt Human or Animal Specimens are not subject to DOT requirements for packaging. However, the EH&S Campus Biowaste Policy must be followed as necessary for disposal of these materials. If these materials are going to be transported in freezers then they must be packaged so that there is sufficient packaging to prevent breakage and absorbent material in case of leakage.

The following are considered **Exempt Human or Animal Specimens**:

- Does not contain an infectious substance or that is unlikely to cause disease in humans or animals.
- Non-infectious biological materials from humans, animals, or plants. Examples include non-infectious cells, tissue cultures, blood or plasma from individuals not suspected of having an infectious disease, DNA, RNA or other non-infectious genetic elements.
- A material containing micro-organisms that are non-pathogenic to humans or animals.
- A material containing pathogens that have been neutralized or inactivated such that they no longer pose a health risk.
- A material with a low probability of containing an infectious substance, or where the concentration of the infectious substance is at a level naturally occurring in the environment so it cannot cause disease when exposure to it occurs.



Any questions on moving Category B or Exempt Patient Specimens should be directed to the [Biosafety Officer](#) (303-492-8683) for further information and assistance.

2. Human and Animal Cell Culture Materials

Human and animal cell culture materials, not containing infectious materials (Category A or B above) are not restricted for transportation during the move. We strongly encourage all laboratories working with human or animal cell culture materials to plan for the movement of these materials, whether at ambient temperatures, refrigerated or frozen. Additional information may be found in the related EH&S guidance document, "Moving Biological Agents and Materials" (Appendix 4).

This will allow appropriate time to clean incubators and other equipment, and go through the other requisite steps for the move.

3. Preserved Tissue and Specimens

Any tissue or specimen preserved in formaldehyde, mercuric chloride, or other preservatives should be included in your chemical inventory, using the preservative name and volume. These containers **MUST** be shipped as a hazardous material by the LPC. All containers **MUST** be **PROPERLY SEALED** (so they cannot leak), and labeled with the full chemical name to be lab-packed and moved.

4. Select Agents and Toxins

The term "Select Agents" refers to a collection of designated infectious agents and toxins that, by their nature, have the potential to pose a severe threat to public, animal or plant health; this threat has resulted in the creation of very strict regulations that impose fines and possible imprisonment for non-compliance. These regulations came into effect June 2002, so it is possible that you may find a select agent while you are cleaning out a freezer.

Refer to Appendix 7 at the end of this document or go to <http://www.selectagents.gov/Select%20Agents%20and%20Toxins%20List.html>.

If you find any select agent:

- **DO NOT THROW AWAY OR PROCESS THROUGH BIOWASTE OR HAZARDOUS WASTE PROGRAMS**
- Secure material in a locked freezer or other container that has restricted access
- Contact EH&S immediately for assistance

5. Biohazardous Wastes

All biological/biohazardous waste must be processed prior to the move. No biological waste will be permitted to be moved by the Lab Packing Contractor or in a University or private vehicle.

All infectious wastes must be rendered non-infectious and disposed of through E&HS using either the Biowaste program or the hazardous waste programs. All sharps must be contained in puncture-proof containers.



Glass sharps and other biohazardous wastes: after disinfection should be disposed using the **certified non-biohazardous waste tag**. Further guidance: <http://ehs.colorado.edu/resources/segregation-and-disposal-of-broken-glass-pipette-tips-and-other-plastic-puncture-hazards/>

Metal sharps (needles, scalpels, razors): after disinfection must be disposed using the **hazardous material/waste tag**. Further guidance: <http://ehs.colorado.edu/resources/segregation-and-disposal-of-metal-sharps/>

B. Chemicals

1. Chemical Inventory

After relocation, labs will be required to update their chemical inventories utilizing the EH&S chemical inventory system. Limit purchases of new chemicals three months prior to the move. Purchase only what you can reasonably expect to use in that time frame. Recycle useful chemical reagents you no longer need to other CU-Boulder researchers if possible. Dispose of unneeded or outdated reagents **before** moving.

Laboratories relocating will need to begin procuring their chemicals directly from a chemical manufacturer/supplier or through the nearest CU chemical storeroom: [ChemStores West](#) located in Cristol Chemistry on main campus or [ChemStores East](#) located in the Jenny Smoley Caruthers Biotechnology Building on east campus. It is not permitted for laboratories to transport chemicals in their own personal vehicles or CU vehicles.

2. Moving Chemicals

All hazardous and non-hazardous chemical reagents **must** be packaged and transported by trained contractors (Lab Packing Contractors (LPC)) as part of the move. Reference the related EH&S guidance document "Moving Chemicals" (Appendix 8) for guidance on how to prepare your chemicals for transportation by the LPC.

The following is a summary of what actions need to be taken by researchers to facilitate the movement of their chemicals:

- All containers of chemicals must be labeled with the complete chemical name.
- All containers must be securely closed with a properly fitting lid.
- A day or two before the LPC is scheduled to arrive in your lab: gather chemicals into one or two areas that would be safe and secure for temporary storage; be sure to observe proper segregation and secondary containment of incompatible chemicals.
- Beakers, flasks, evaporating dishes, etc. must be emptied and cleaned.
- Check refrigerators, freezers, fume hoods and bench tops as well as storage cabinets for chemical containers.
- Don't forget about the reagent containers on all equipment/instruments that have attached chemicals or waste containers such as synthesizers, sequencers, HPLC, etc. These will need to be removed and transported by the LPC contractor. All hazardous waste containers must be disposed through EH&S Hazardous Materials Group.
- The LPC will segregate and package all chemicals into drums for movement. The LPC will need move stickers completed by each research group for each drum, to ensure the correct placement in the new location. Due to segregation of various chemicals, please ensure an extra supply of completed move stickers is available to the LPC.



3. Mercury-Containing Equipment

Set aside all mercury thermometers for shipment by the Lab Packing Contractor. Contact EH&S for help with clean-up of mercury that has been released or spilled onto the floor. As an alternate way of handling mercury thermometers, contact EH&S to exchange your mercury thermometer for an alcohol-based thermometer free of charge.

Mercury ‘bubblers’ and barometers – Completely drain the mercury from these into sealed plastic bottles (do this inside of a hood and utilizing secondary containment). Set aside empty bubblers, barometers and sealed plastic bottles holding metallic mercury for shipment by the Lab Packing Contractor.

4. Chemical Wastes

All chemical wastes, expired chemicals or those materials that will not be moved must be disposed of through the Hazardous Materials Group. Chemical waste pick-ups should be completed before the move begins. **Please don’t wait until the last minute!**

EH&S has a segregation process for large amounts of chemicals to dispose of; this process will greatly reduce the amount of waste tags that need to be completed by the research group. The closer we get to the big move, the busier EH&S will become – if you are reading this document that means we are ready to help you dispose of your unwanted chemicals right now. Call or email the [Hazardous Materials / Waste Group](#) at 303-492-7845 to set up an appointment.

You should anticipate finding unknown or unlabeled materials in the laboratory. Each laboratory is responsible for identifying all potentially hazardous materials in their areas to be moved or which require disposal. By working with EH&S representatives, a general characterization of unknown materials can usually be made to facilitate their disposal and to avoid additional costs.

Unknown materials must be submitted for disposal using EH&S Hazardous Materials/Waste tags. Each unknown must be submitted on a separate tag. Please provide as much information as possible on the tags to assist EH&S personnel with identifying the materials (i.e. white solid, clear liquid with pH=5, etc.).

C. Radioactive Materials

1. Sealed Sources

Laboratories that are moving must discontinue work with sealed sources of radioactive material **at least one week prior** to moving. After this time all sealed sources will either be disposed of as waste or packaged for EH&S transport to the new location. For more information on relocating radioactive materials, consult “Moving Radioactive Materials” (Appendix 5).

2. Unsealed Sources

Laboratories that are moving must discontinue work with unsealed sources of radioactive material **at least one week prior** to moving. After this time, all unsealed sources (stock vials, aliquots, etc.) will either be disposed as waste or packaged for EH&S transport to the new location. For more information on relocating radioactive materials, consult “Moving Radioactive Materials” (Appendix 5).



3. X-ray Machines

Laboratories that are moving must discontinue work with x-ray machines **at least one week prior** to moving. Assistance from the device manufacturer/servicing agent and/or other outside vendor may be required. For more information on relocating your x-ray machine(s), contact your department's move coordinator and [Radiation Safety](#) at 303-492-6523.

D. Mixed Hazardous Wastes

Occasionally it is necessary to dispose of materials or wastes that contain both radioactive and hazardous chemical wastes (flammable, corrosive, reactive or toxic). These materials require significant time and effort to dispose of in accordance with all environmental regulations. Contact [Radiation Safety](#) at 303-492-6523.

V. OTHER SPECIALTY ITEMS

A. Compressed Gas Cylinders

Remove gas connections, replace cylinder caps, and leave cylinders for transport by the Lab Packing Contractors (LPC) or the CU Distribution Department.

Nitrogen tanks/dewars and large rental/returnable cylinders obtained from Distribution Services will be relocated by Distribution Services; coordinate with your department liaison for relocations of nitrogen tanks/dewars and other large rental/returnable cylinders or contact: [Material Management](#) at 303-492-6369.

Lecture bottles and other small, non-returnable cylinders will be moved by the LPC's to the new location. For unneeded compressed gas cylinders that are non-returnable, or for lecture bottles that are no longer needed, submit a hazardous material/waste tag for disposal. Do not dispose of them in the trash, even if they are empty.

B. Controlled Substances

Controlled substance registrations (permits) are issued by the US Drug Enforcement Agency (DEA) and are issued to individual researchers. Permits must be updated with new lab locations prior to moving the controlled substances. Please refer to the DEA website <http://www.deadiversion.usdoj.gov/drugreg/index.html> for permit changes, address changes, etc. It takes a minimum of six to eight weeks to amend a permit. Permit holders will be assigned to a DEA investigator and may require a site visit prior to approval.

These items must **not** be moved by any outside contractors or EH&S staff. They must be inventoried (written documentation) by the permit holder per DEA regulations, moved by the permit holder, and re-inventoried upon arrival at the new location and secured. Assistance in the transportation of the controlled substances may be requested of the University Police Department by the permit holder.

If a controlled substance is also a DOT hazardous material (flammable or toxic), it cannot be moved and should be disposed of as hazardous waste through the Hazardous Materials Group. Further guidance: <http://ehs.colorado.edu/resources/disposal-of-controlled-substances-and-other-pharmaceuticals/>

Permission to transfer ownership of a controlled substance to another individual must be received from DEA. Abandonment of a controlled substance is a violation of the DEA permit under which it was held.

C. Tax-free Alcohol

Tax-free alcohol is obtained under a generic Industrial Alcohol Permit from the US Alcohol and Tobacco Trade Bureau (TTB). Please refer to the TTB website http://www.ttb.gov/industrial/taxfree_alcohol.shtml for regulations related to tax-free alcohol. The existing general Alcohol Permit will be modified in a manner to allow for labs to procure tax-free alcohol at the new location. Tax-free alcohol is not allowed to be removed from the premises at which it was originally received (i.e. it cannot be moved to the new laboratory location), so remaining inventories of tax-free alcohol will require disposal using EH&S hazardous materials/waste tags. LPC's will not be allowed to relocate tax-free alcohol, so please attempt to limit stockpiles of alcohol in the months prior to the moves.

VI. UNPACKING CHEMICALS

Research personnel will be responsible for unpacking chemicals after they have been moved by LPCs. Refer to "Unpacking Chemicals and Chemical Storage Guidelines" (Appendix 9) and "Moving Biological Agents and Materials" (Appendix 4).

VII. FINAL CLEARANCE FOR VACATED SPACES

Once the laboratory is completely moved, arrangements must be made to confirm with an EH&S representative that the formerly occupied space(s) is free from hazardous materials or contaminants on any lab surfaces (bench tops, floors, etc.). The proper disposal of all hazardous materials, laboratory equipment, and laboratory space is the responsibility of each department and principal investigator to whom the laboratory is assigned.

EH&S personnel, in conjunction with the applicable departmental liaison or building proctor, will inspect the vacated spaces to confirm that all hazardous materials, equipment, and supplies have been removed. Any equipment and supplies left behind must be approved by the applicable departmental liaison. A checklist will be utilized to confirm and document that the former lab space has been appropriately vacated. See the Final Lab Clearance Checklist (Appendix 10).

All costs associated with laboratory spaces that have been improperly abandoned and require cleaning services and/or removal of hazardous materials will be charged back to the appropriate department.

Decontamination Procedure for Laboratory Equipment

Researchers must properly decontaminate their laboratory equipment of hazardous materials (chemical, radioactive, or infectious materials) before the moving contractors or Facilities Management personnel can transport the equipment. In order to protect the individuals handling the equipment, comply with hazardous material regulations and avoid dangerous spills, it is important to check every piece of laboratory equipment that once held hazardous materials and ensure that any remaining materials have been removed with an appropriate cleaning solution.

For most chemicals, scrubbing with a laboratory detergent (Alconox or equivalent) and water should be adequate to remove the chemical contamination. Remove infectious residues with a 10% hypochlorite solution (nine parts water, one part bleach) or a laboratory detergent containing hypochlorite. Contact EH&S at 303-492-6025 for cleaning procedures for materials exhibiting extreme or unusually dangerous hazards. For decontamination of radioactive materials, clean the equipment and perform smear surveys according to the “Moving Radioactive Materials” (Appendix 5). Equipment that is potentially contaminated with radioactive materials must not be moved or even handled inside the laboratory until survey results confirm activity of less than twice that of background levels.

All equipment must be either: moved to the new location; have disposal arrangements made with Facilities Management; or be approved by the applicable departmental liaison to be left behind before each research group will be relieved of responsibility for their former room/area. Research groups will not be allowed to abandon equipment they no longer need. There are two different methods for certifying hazardous material decontamination of equipment depending on whether the equipment will be moved to the new location or if it will be disposed of:

For equipment that will be moved - Complete an [EH&S Green Tag](#) and a move sticker

All equipment that will be moved will require an EH&S Green Tag certifying that the equipment has been decontaminated, or has never been in contact with hazardous materials. Green Tags will be available from EH&S; to obtain Green Tags please call 303-492-6025 or email [EH&S](#). Once researchers have properly decontaminated the laboratory equipment, they will need to complete, sign, and attach a green tag to the piece of equipment. In addition to the Green Tag, a move sticker noting the new room number and location will also need to be completed and attached to each piece of equipment.

For equipment that will be disposed - Complete an [Equipment Disposal / Resale Form](#)

Refer to the [Property Services website](#) for instruction to arrange pickup and disposal of all surplus laboratory equipment and electronics. Each department has a liaison to Property Services that is familiar with the equipment disposal procedures – please coordinate with this individual in your department to dispose of your equipment. An [Equipment Disposal / Resale Form](#), and decontamination procedures listed within must be completed if the laboratory equipment was ever in contact with, or may be contaminated with chemicals, radioactive, or infectious materials. Decontamination must be performed by the researchers prior to pick-up.



Here are some common examples and things to remember when decontaminating lab equipment:

1. Refrigerators – Remove all contents such as mercury thermometers, chemical reagents, and radioactive isotopes. Decontaminate the refrigerator if it held radioactive isotopes, infectious agents, or toxic chemicals. See “Moving Radioactive Materials” (Appendix 5) for surveying refrigerators which stored radioactive isotopes, especially if the unit has ever been used to store H-3 (tritium). Biological materials such as tissues and specimens may remain inside the refrigerator while being shipped by the moving contractors. See “Moving Biological Agents and Materials” (Appendix 4). Defrost the refrigerator if there is a buildup of ice around the freezer compartment. For additional information see “Moving Refrigerators and Freezers” (Appendix 3).
2. Freezers – Remove all mercury thermometers, hazardous chemicals, and radioactive isotopes. Frozen tissues and specimens may remain inside freezer while being shipped by the moving contractors. See the EH&S guidance document “Moving Refrigerators and Freezers” (Appendix 3) for further directions on shipping freezers holding infectious agents or potentially infectious samples. Decontaminate the freezer if it held radioactive isotopes, infectious agents or toxic chemicals. See “Moving Radioactive Materials” (Appendix 5) for surveying freezers which stored radioactive isotopes.
3. Ovens – Remove all mercury thermometers or containers holding samples or liquids. For older ovens, check the lining for the presence of asbestos. If the oven lining appears to be constructed of asbestos, contact [EH&S Asbestos Manager](#) (303-492-6026) for assistance.
4. Incubators – Remove any remaining samples and thermometers, and drain the water from the jacket. Laboratory equipment which was used for infectious agents, radioactive isotopes, or hazardous chemicals must be properly decontaminated by the researchers and green-tagged prior to the move.
5. Centrifuges – Inspect for centrifuge tubes holding water or samples to ensure they have been removed from the rotor system. Centrifuges which were used with infectious agents, radioactive isotopes, or hazardous chemicals must be properly decontaminated by the researchers and green-tagged prior to the move.
6. Water baths – Drain the water from the unit and remove any remaining samples or mercury thermometers.
7. Balances or scales – Wipe clean to remove any remaining chemical contamination inside the balance or on the scale.
8. Chemical storage cabinets such as flammable or corrosive cabinets must have all the chemical containers removed prior to moving the cabinet. Decontaminate the chemical storage cabinet of any remaining spills or residues.
9. Vacuum pumps contain vacuum pump oil. Vacuum oil which is grossly-contaminated with toxic chemicals or other hazardous materials should be removed prior to shipment. Discard all spent vacuum pump oil through EH&S as hazardous waste.
10. Mercury thermometers – Set aside all mercury thermometers for shipment by the Lab Packing Contractor. Contact EH&S for help with clean-up of mercury that has been released or spilled onto the floor. As an alternate way of handling mercury thermometers, contact EH&S to exchange your mercury thermometer for an alcohol-based thermometer free of charge.



11. Heating blocks need to have samples and mercury thermometers removed. If necessary, decontaminate the heating block. Set all mercury thermometers aside for shipment by the Lab Packing Contractor.
12. Mercury barometers – Completely drain the mercury from the barometer into sealed plastic bottles (do this inside of a hood and utilizing secondary containment). Set aside empty barometer and sealed plastic bottles holding metallic mercury for shipment by the Lab Packing Contractor.
13. Photo-processing equipment usually contains three storage tanks holding caustic developer, acidic photographic fixer and rinse water. Drain the storage tanks, supply hoses and drain hoses prior to the move. Discard the photo-processing chemicals through EH&S as hazardous waste.
14. Gas chromatographs (GC) which have electron capture detectors contain a radioactive source. If your GC has a radioactive source, contact the CU-Boulder Radiation Safety Group (303-492-6523) prior to moving the unit.
15. High Performance Liquid Chromatography (HPLC) may have columns that contain solvents. Drain the columns and waste lines prior to shipping the HPLC. Dispose of the solvent wastes through EH&S as hazardous waste.
16. Tissue dehydrating units – Remove or drain all the ethanol and xylene from the storage tanks. Dispose of the solvents through EH&S as hazardous waste. Paraffin wax and tissue samples may also need to be removed from the tissue dehydrating unit.
17. Colorimeters may contain cuvettes holding liquids. If this is the case, the cuvettes need to be removed from the colorimeters before shipping.
18. Spectrophotometers may have automatic sample feeders holding sample containers or standards. Again, if this is the case, remove the containers or standards before shipping.
19. Desiccators may contain drying agents (Drierite, sodium hydroxide, phosphorus pentoxide). Assure they are removed prior to shipment and placed in a sealed container for transport by the Lab Packing Contractors. Discard spent drying agents through EH&S as hazardous waste.
20. Transformers or high voltage regulators may contain oil. Older transformers (<1980) may contain PCB contaminated oil. Contact EH&S whenever oil containing transformers or high voltage regulators are discovered. Do not ship oil containing transformers or high voltage regulators without approval from EH&S.
21. Water purification systems – Remove all the free standing water from the water purification cartridges prior to the move.
22. pH electrodes and other chemical electrode systems may contain water and possibly hazardous chemicals. Set aside electrodes containing liquids for shipment by the Lab Packing Contractors.
23. Liquid Scintillation Counters (LSCs) likely have a radioactive source inside and need to be moved by a different contractor. See “Moving Radioactive Materials” (Appendix 5) and contact Radiation Safety at 303-492-6523 for more information.
24. Biosafety Cabinets – Refer to “Moving Biological Agents and Materials” (Appendix 4).

Moving Lab Equipment and Supplies

Researchers must properly package their laboratory equipment and supplies into shipping boxes prior to having them transported by the general move contractor. Researchers need to check every piece of laboratory equipment that once held hazardous materials to insure that any remaining samples or standards have been removed. Additionally, it is important to segregate any chemical reagents or liquids from the shipping boxes in order to prevent spills and contamination problems. To ensure the contents of each shipping box has been decontaminated and/or disinfected and are safe for the move contractors to handle, each box must be labeled with a green tag and moving sticker. **All hazardous materials will be packaged and transported by the Lab Packing Contractor (LPC).**

Researchers need to adhere to the following guidelines when packaging laboratory supplies and equipment into cardboard shipping boxes:

1. **Do not** place any chemical reagents, waste containers, radioactive or infectious materials into shipping boxes. Do not box up supplies or equipment which is significantly contaminated with any of the previously listed materials. Wash contaminated equipment or supplies thoroughly with soap and water. Do not box up aerosol cans, gas cylinders, paint, cleaners, disinfectants, bleach, or kits containing chemical reagents (the LPC will ship these).
2. **Do not** place any containers or equipment holding liquids of any kind (including sterile water) into shipping boxes. Most liquids will need to be transported by the LPC. For refrigerated non-hazardous liquids, see "Moving Refrigerators and Freezers" (Appendix 3).
3. **Do not** place any equipment or supplies potentially contaminated with radioactive isotopes into shipping boxes until the item has been cleared by the use of wipe tests. Potentially radioactive materials include lead pigs, Plexiglas or other shielding, and equipment that held radioactive materials.
4. **Do not** place any infectious agents or biological samples into shipping boxes. Equipment contaminated with potentially infectious materials needs to be properly disinfected before placing into shipping boxes. Do not box up needle buckets holding discarded sharps or containers holding biological wastes (these will need to be disposed of by the Hazardous Materials Group).
5. **Do not** place into boxes any mercury containing thermometers, barometers, bubblers or other equipment containing metallic mercury (Lab Packing Contractors will ship these).
6. **Do not** package any loose needles, syringes, sharps, scalpels, razor blades, glass slides, sheets of glass, or glass pipettes into a shipping box unless it has been placed inside a rigid container that will prevent them from poking through the cardboard shipping box.

Do not place sharp or pointed objects of any kind into the shipping box unless it has been packaged in such a manner that it will not puncture or tear through the cardboard shipping box. Your research group will unpack the box, so please take the extra time to make sure it is safe not only for the move contractors, but also for you and your colleagues when the box is unpacked in your new location.

Moving Refrigerators and Freezers

Refrigerators

Refrigerators must be completely emptied of all contents by researchers prior to shipment.

All non-hazardous and non-infectious reagents and supplies (agar, bovine serum, cell culture media, etc.) will be removed by the researchers and placed into coolers supplied by the move contractor for shipment. It is imperative that researchers **not** place any hazardous chemical reagents in the coolers. Researchers will be responsible for adding packing material (Styrofoam beads) between the glass containers in the coolers along with the frozen cooling packs to prevent breakage. The general move contractor will transport the coolers and then researchers will unpack them in the new location. If it is possible to place non-hazardous items inside of a freezer and keep them frozen for shipment, this may be an easier alternative than packing into coolers; please see an explanation below under “freezers”.

All refrigerated hazardous chemicals (flammable, oxidizing, corrosive, reactive, or toxic) must be provided to the Lab Packing Contractor (LPC) for shipment along with the other laboratory chemicals, or disposed of through the Hazardous Materials Group.

If your refrigerator has been used to store radioactive materials, you must perform smear surveys according to the “Moving Radioactive Materials” (Appendix 5) before your refrigerator can be moved. Defrost the refrigerator if there is a buildup of ice around the freezer compartment. If the unit has ever been used to store H-3 (tritium), the lab must collect, sample and analyze the defrost liquid to determine if it needs to be disposed as radioactive waste.

If your refrigerator has been used to store infectious agents you must wipe down your refrigerator with an appropriate disinfectant.

Freezers

A special permit has been obtained from the US Department of Transportation that allows for the movement of -70 and -20 freezers, and nitrogen freezers/dewars containing biological materials. If your lab has freezers that contain biological materials, special arrangements must be made in advance. Contact the [EH&S Biosafety officer](#) at 303-492-8683 for additional information and coordination for the movement of these freezers.

The special permit applies only to biological materials contained within -70 & -20 freezers. All hazardous chemicals and radiological materials must be removed. Prepare an inventory of all biological materials stored inside the freezer and attach a copy to the outside of the freezer and provide a copy to the moving contractor. For detailed instructions, refer to “Moving Biological Agents and Materials” (Appendix 4).

Nitrogen freezers/dewars must only contain sufficient nitrogen as needed for cooling during their movement to the new location. Empty out nitrogen so that the dewars are no more than half full before moving to prevent spillage during transportation. The move contractor will use special packaging methods to stabilize the nitrogen freezers/dewars during the move.



Moving Biological Agents and Materials

Disposal, Packaging, and Unpacking of Biological Items in Ultra Low Temperature (ULT) Freezers and Other Freezers, and Refrigerators

These procedures will help laboratories clean out and dispose of unused or unwanted biological items contained in ULT freezers and other freezers, and refrigerators **or** to package them so that they remain contained within the freezers during transport.

Important note: For tissue culture wastes, or items that are or may be biohazardous, these items must be separated and autoclaved, or chemically disinfected before they can be disposed of. After these items are disinfected, they should be disposed of through the biowaste program and using a certified non-biohazardous waste tag. If you have animal carcasses and/or parts to dispose of please keep these separate and contact EH&S for disposal procedures.

Disposal of Biological Items

All items removed from any freezer or refrigerator must be carefully evaluated to ensure that they are properly disposed of. For most biological kits and biological samples there is a consolidation procedure described below that can be implemented by laboratory personnel and will greatly reduce the volume of waste and the amount of Certified Non-Biohazardous Waste or Hazardous Waste tags that need to be completed by the research group.

For biological kits and samples:

Usually the majority of contents stored in freezers and ULT freezers are not hazardous materials, and consist of such items as: polymerase chain reaction (PCR) kits and other kits, biological samples, nucleic acids, peptides, enzymes, etc. that are in an aqueous pH buffered solution and may also contain some non-hazardous salts. EH&S will still collect these types of waste through the hazardous waste program; but in the interest of reducing the number of waste tags that need to be completed, laboratory personnel can bag these wastes together and fill out a summarized waste tag for disposal. Here is a description of how to do it:

The kits should be opened and the small bottles (<100ml) or aliquot tubes removed from their packaging materials and bagged with other similar items into a sturdy, clear, medium sized plastic bag for disposal (EH&S will provide bags for this – call 2-8531, no trash bags or large bags will be allowed). This will greatly reduce the volume of waste to be disposed of, and also allows for the recycling of the cardboard and paperboard packaging materials.



Here is what can be bagged up for disposal:

Aqueous solutions of:

- pH buffered solutions, BICINE, EDTA, HEPES, MES, MOPS, PBS, PIPES, TRIS, etc.
- dyes, stains
- growth media, broths, bovine serum albumin, sugars
- nucleic acids, peptides, proteins, amino acids, enzymes, vitamins
- ammonium acetate, calcium acetate, lithium acetate, magnesium acetate, potassium acetate, sodium acetate
- ammonium carbonate, calcium carbonate, lithium carbonate, potassium carbonate, sodium carbonate
- ammonium chloride, calcium chloride, cesium chloride, lithium chloride, magnesium chloride, potassium chloride, sodium chloride

Once a bag has been filled with these non-hazardous items, fill out and attach a hazardous waste tag to each bag. Fill out the hazardous waste tag as you normally would, but under the “container contents” section just list a general description of the items contained in each bag. Don’t worry about percentages or total quantity of solids or liquids – EH&S will complete any additional information that is needed for each tag when the waste is picked up. Call 303-492-7845 and let us know when you are ready for a pickup.

Here is a list of what CANNOT be bagged up for disposal: [all of these will need separate disposal and segregation by EH&S – follow instructions for moving chemical reagents (Appendix 8)]

- Radioactive materials
- Mercury or mercury compounds
- Any of these metals (or compounds of):
 - Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Molybdenum, Nickel, Selenium, Silver, Zinc
- Flammable liquids (ethanol, methanol, ethers, etc.)
- Corrosive liquids (pH <3 or >11)
- Halogenated solvents (chloroform, methylene chloride, etc.)
- Oxidizers (hydrogen peroxide, nitrates, chlorates, permanganates, etc.)
- Reactive chemicals (water reactive, pyrophoric, cyanides, sulfides, azides, picric acid, etc.)
- Extremely toxic compounds (acrolein, bromine, carbon disulfide, osmium tetroxide, etc.)
- Toxins from living sources (venoms, actinomycin D, mytomycin C, amanitin, etc.)
- This list is not all inclusive; if in doubt keep the items separate for EH&S to consider

For infectious agents or biohazardous samples:

Follow the current EH&S Campus Biowaste Policy for the proper disposal of infectious agents or biohazardous samples. An autoclave bag must be used and have a completed Certified Non-Biohazardous Waste tag attached.

- Infectious agents
- Biohazardous samples that contain infectious agents
 - human or animal cells or cells in culture
 - human or animal tissue culture
 - human or animal tissue or fluid
- Biohazardous samples that contain human cells or cells in culture, tissue or fluid



Packaging Biological Items in Ultra Low Temperature (ULT) Freezers and Other Freezers, and Refrigerators

ULT Freezers and Other Freezers:

1. Only the move contractor is authorized to move freezers which contain biological items.
2. An inventory of all infectious agents or biohazardous samples must be posted on the outside front door of each freezer and provide a copy of this inventory to the move contractor. Contact the [EH&S Biosafety officer](#) at 303-492-8683 for assistance.
3. Biological items must be packed as follows:
 - a. The substances, contained in sealed ampoules, screw-capped vials, or other cryovials (primary receptacles), must be packaged in individual fiberboard boxes.
 - b. The volume of the substance in each primary receptacle must not exceed 1 mL if contained in sealed ampoules, micro-tubes, and microvials, and 25 mL if contained in screw-capped vials or other appropriate primary receptacles.
 - c. No more than 100 primary receptacles may be packed in a fiberboard box.
 - d. No more than 200 boxes may be placed on racks in a freezer.
 - e. The primary receptacles placed on racks must be wrapped in a plastic bag prior to placing the racks in a freezer.
4. Sufficient absorbent material must be placed in each freezer to absorb the entire contents of all primary receptacles in case of breakage or leakage and to prevent the contents from shifting during transport. The freezer serves as the outer packaging.
5. All freezers are constructed of steel and ultracold (-70°C or colder) and liquid nitrogen freezers are double-walled.
6. Boxes and racks must be tightly secured within the freezer to prevent the contents from shifting.
7. All freezer doors and lids must be securely closed and wrapped to prevent opening during transport.
8. The biological items in the freezers must be kept frozen at all times within the operating temperature range of -70°C or colder (ultracold freezer), -20°C (-20°C freezer), and liquid nitrogen (nitrogen freezer) using dry ice. Dry ice sufficient to keep the biological substances within the operating temperature range for at least twice the estimated travel time must be used in the freezers on the transport vehicles.
9. All freezers will be secured against movement in the transport vehicle by the Move contractor.

Refrigerators:

Refrigerators must be completely emptied of all contents by researchers prior to shipment.

All non-hazardous and non-infectious reagents and supplies (agar, bovine serum, cell culture media, etc.) will be removed by the researchers and placed into coolers supplied by the move contractor for shipment. It is imperative that researchers **not** place any infectious agents, biohazardous samples, or hazardous chemical reagents in the plastic coolers. Researchers will be responsible for adding packing material (Styrofoam beads) between the glass containers in the coolers along with the frozen cooling packs to prevent breakage. The general move contractor will transport the coolers and then researchers will unpack them in the new location. If it is possible to place non-hazardous items inside of a freezer and keep them frozen for shipment, this may be an easier alternative than packing into coolers; please see “Moving Refrigerators and Freezers” (Appendix 3) for an explanation.



If you have refrigerated infectious agents or biohazardous samples that must be transported and cannot be frozen and transported inside of a freezer, please contact the [EH&S Biosafety officer](#) at 303-492-8683 for assistance.

If your refrigerator has been used to store infectious agents you must wipe down the interior and exterior of your refrigerator with an appropriate disinfectant.

Unpacking Biological Items in Ultra Low Temperature (ULT) Freezers and Other Freezers

Items within freezers may shift or even break during transport. Care should be taken when initially opening freezer door. If a spill has occurred within or immediately outside of the freezer, follow the Biohazardous Spill Clean-up Procedures:

Spill Inside the Freezer:

1. If you suspect or know that the material is infectious, then close the freezer door, secure it and call EH&S at 303-492-6025.

Spill Outside of Freezer:

1. Wear appropriate PPE such as disposable gloves, safety glasses and lab coat.
2. If you suspect or know that the material is infectious, place an absorbent material over the liquid and spray with an appropriate disinfectant. Let stand for at least 10 to 15 minutes and place all materials in an autoclave bag. Follow EH&S Campus Biowaste Policy for disposal procedures.
3. If the material is not infectious, use an absorbent material to clean up spill and place in trash.
4. If broken glass is involved, use tongs to safely clean-up all materials and place in a puncture proof container for disposal.

Cleaning, Transport, and Disposal of Biosafety Cabinets

Biosafety cabinets (includes tissue culture hoods and laminar flow hoods) in which infectious or biohazardous materials have been used must have all interior surfaces wiped with a suitable disinfectant. If the entire history of use for any cabinet is not known, then it will be cleaned according to the following procedures. Consult with the [EH&S Biosafety officer](#) (303-492-8683) for further information.

Cleaning for – disposal

Disposal of a biosafety cabinet will require an outside contractor/vendor to decontaminate the HEPA filters prior to cabinet being disposed. An [Equipment Disposal / Resale Form](#) must be completed and returned to Property Services with your Disposal Request or fax to 303-492-1773.

Cleaning for – transport

Transport of a biosafety cabinet will require an outside contractor/vendor to decontaminate the HEPA filters prior to cabinet being moved and transported. All Biosafety cabinets moved must be certified by an approved contractor/vendor at the new location prior to starting up work again.

Cleaning for – move to another location

Moving a biosafety cabinet from its current location will require an outside contractor/vendor to decontaminate the HEPA filters prior to cabinet being moved. The cabinet must be certified by an approved contractor/vendor at the new location prior to starting up work again.

Cleaning for – leave in place

A cabinet that will be left in place must have all interior and exterior surfaces wiped with a suitable disinfectant.



Moving Radioactive Materials

Laboratories licensed for radioactive materials and relocating to a new location must coordinate with EH&S. To ensure safety and compliance with applicable regulations, all radioactive materials will be transported by EH&S Radiation Safety staff. Laboratory license amendments require approval of the Radiation Safety Committee to authorize new work spaces.

Researchers must follow the procedure below to ensure appropriate relocation of their radioactive materials (RAM).

AT LEAST

60 days prior to move	Submit license amendment for new work space(s)
45 days prior to move logistics	EH&S Radiation Safety will visit the laboratory to address relocation
Two weeks prior to move	Laboratories will not be permitted to receive additional radioactive materials. Standing purchases will be held at the Environmental Health and Safety Center until the move is complete. Laboratories should stop working with radioactive materials.
One week prior to move	Inventory verification: Radiation Safety staff will work with laboratory staff to inventory and verify that all radioactive material is accounted for, either in waste or in material that will be moved. It is strongly recommended that laboratories dispose of old/decayed material. Laboratories must stop working with radioactive materials. Waste Collection: All waste and empty waste containers to be collected by Radiation Safety staff must be submitted.
One day prior to move	Radioactive Materials: RAM must be consolidated into appropriate containers and packed with dry ice, if necessary, by laboratory personnel. Containers must be left unsealed for inspection prior to collection and transfer. Packing slips will be completed by Radiation Safety personnel and must be affixed to each package. Additional forms will be available.
Moving Day	Radioactive Materials: All RAM will be collected and transferred to the new location by Radiation Safety staff. Never transport Radioactive Materials in your own personal vehicle!

In order to resume ordering Radioactive Materials, someone must **meet with Radiation Safety in the former lab space**. Ideally, this is someone most familiar with any remaining items, especially any waste. This will be the time to conduct an Exit Survey to ensure that the laboratory is free from contamination, all signage has been removed, and that all waste concerns have been addressed. Radiation Safety cannot accept unknown wastes, therefore, do everything you can to identify waste items. This visit may be completed in conjunction with the EH&S Final Lab Clearance process as outlined in Appendix 10.

Questions? Contact [Radiation Safety](#) at 303-492-6523. Please don't wait until the last minute!



Defrosting a Contaminated Freezer

1. Check to see if appropriate tritium (^3H) waste containers (liquid and solid) are available for the waste generated from the freezer. If appropriate waste containers are not available, contact [Radiation Safety](#) at (303) 492-6523.
2. Open the door and follow manufacturer's directions for switching to DEFROST mode. Be sure to place pans and absorbent bench paper around the freezer to catch any water leakage.
3. Prepare the fume hood by placing absorbent paper with a plastic backing in the bottom of the hood. The fume hood will be used to allow ice to melt in containers and dry out paper towels.
4. When chunks of ice begin to loosen, put on two pairs of disposable gloves and a lab coat and remove the larger pieces of ice. Change gloves frequently, as tritium (^3H) can infiltrate the plastic of the gloves.
5. Place the ice in large beakers or other containers and let thaw in an adequately ventilated fume hood.
6. Blot up frost melt with disposable paper towels and place the towels in the hood to dry.
7. Place liquid frost melt in a tritium (^3H) liquid radioactive waste container, noting activity on container contents sheet. Place the **dry** paper towels and used gloves in a tritium (^3H) solid radioactive waste container, noting the approximate activity on container contents sheet.
8. After all the ice and residual liquid is removed, wash down the interior surfaces with a decontamination solution and disposable paper towels. Rinse and dry. Dispose of paper towels, rinse, and used gloves as in 5 and 6 above.
9. Check freezer handles, exterior, and area around freezer for contamination (see below).
10. Wash your hands.

Equipment / Surface Decontamination Procedures

1. Use a decontamination solution (such as RadiacWash or IsoClean) or a strong detergent to clean with paper towels. For some radionuclides, a portable survey instrument may be helpful in narrowing down areas of contamination.
2. When wiping the area with the paper towels, be sure to wipe from the outside to inside to prevent spreading the contamination.
3. Dispose of all clean-up materials in an appropriate radioactive waste container.
4. Take a wipe smear survey of the area to be sure it is clean. If the result is \geq twice background, repeat cleaning process.
5. Record all wipe smear results in the laboratory's Radiation Safety Survey Log.

Liquid Scintillation Counter Relocation Procedure

Contact Lab Performance Specialists (800) 447-4169 or other service provider to remove the internal sealed source and lead shielding, and coordinate with Radiation Safety for storage of the source.

Questions? Contact [Radiation Safety](#) at 303-492-6523. Please don't wait until the last minute!



DOT - CATEGORY A SUBSTANCES

UN Number and Proper Shipping Name	Micro-organism
<p>UN 2814 Infectious substance affecting humans</p>	<i>Bacillus anthracis</i> (cultures only)
	<i>Brucella abortus</i> (cultures only)
	<i>Brucella melitensis</i> (cultures only)
	<i>Brucella suis</i> (cultures only)
	<i>Burkholderia mallei</i> – <i>Pseudomonas mallei</i> – Glanders (cultures only)
	<i>Burkholderia pseudomallei</i> – <i>Pseudomonas pseudomallei</i> (cultures only)
	<i>Chlamydia psittaci</i> – avian strains (cultures only)
	<i>Clostridium botulinum</i> (cultures only)
	<i>Coccidioides immitis</i> (cultures only)
	<i>Coxiella burnetii</i> (cultures only)
	Crimean-Congo hemorrhagic fever virus
	Dengue virus (cultures only)
	Eastern equine encephalitis virus (cultures only)
	<i>Escherichia coli</i> , verotoxigenic (cultures only)
	Ebola virus
	Flexal virus
	<i>Francisella tularensis</i> (cultures only)
	Guanarito virus
	Hantaan virus
	Hantavirus causing hemorrhagic fever with renal syndrome
	Hendra virus
	Hepatitis B virus (cultures only)
	Herpes B virus (cultures only)
	Human immunodeficiency virus (cultures only)
	Highly pathogenic avian influenza virus (cultures only)
	Japanese Encephalitis virus (cultures only)
	Junin virus
	Kyasanur Forest disease virus
	Lassa virus
	Machupo virus
Marburg virus	
Monkeypox virus	
<i>Mycobacterium tuberculosis</i> (cultures only)	
Nipah virus	



DOT - CATEGORY A SUBSTANCES

UN Number and Proper Shipping Name	Micro-organism
<p>UN 2814 Infectious substance affecting humans</p>	Omsk hemorrhagic fever virus
	<i>Poliovirus</i> (cultures only)
	Rabies virus (cultures only)
	<i>Rickettsia prowazekii</i> (cultures only)
	<i>Rickettsia rickettsii</i> (cultures only)
	Rift Valley fever virus (cultures only)
	<i>Russian spring-summer encephalitis virus</i> (cultures only)
	Sabia virus
	<i>Shigella dysenteriae type 1</i> (cultures only)
	<i>Tick-borne encephalitis virus</i> (cultures only)
	Variola virus
	Venezuelan equine encephalitis virus (cultures only)
	<i>West Nile virus</i> (cultures only)
	<i>Yellow fever virus</i> (cultures only)
<i>Yersinia pestis</i> (cultures only)	

DOT - CATEGORY A SUBSTANCES

UN Number and Proper Shipping Name	Micro-organism
<p>UN 2900 Infectious substances affecting animals</p>	
	African swine fever virus (cultures only)
	Avian paramyxovirus Type 1 – Velogenic Newcastle disease virus (cultures only)
	Classical swine fever virus (cultures only)
	Foot and mouth disease virus (cultures only)
	Lumpy skin disease virus (cultures only)
	<i>Mycoplasma mycoides</i> – Contagious bovine pleuropneumonia (cultures only)
	Peste des petits ruminants virus (cultures only)
	Rinderpest virus (cultures only)
	Sheep-pox virus (cultures only)
	Goatpox virus (cultures only)
	Swine vesicular disease virus (cultures only)
Vesicular stomatitis virus (cultures only)	



Select Agents and Toxins List

<p>Viruses</p> <ol style="list-style-type: none"> 1. African horse sickness virus^u 2. African swine fever virus^u 3. Akabane virus^u 4. Avian influenza virus (highly pathogenic)^u 5. Bluetongue virus (exotic)^u 6. Camel pox virus^u 7. Cercopithecine herpes virus 1 (Herpes B virus)^h 8. Classical swine fever virus^u 9. Crimean-Congo haemorrhagic fever virus^h 10. Eastern equine encephalitis virus^h 11. Ebola viruses^h 12. Foot-and-mouth disease virus^u 13. Goat pox virus^u 14. Hendra virus^{hu} 15. Japanese encephalitis virus^u 16. Lassa fever virus^h 17. Lumpy skin disease virus^u 18. Malignant catarrhal fever virus (Alcelaphine herpes virus type 1)^u 19. Marburg virus^h 20. Menangle virus^u 21. Monkeypox virus^h 22. *Virulent Newcastle disease virus^u 23. Nipah virus^{hu} 24. Peste des petits ruminants virus^u 25. Reconstructed 1918 Influenza virus (Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments.)^h 26. Rift Valley fever virus^{hu} 27. Rinderpest virus^u 28. Sheep pox virus^u 29. South American haemorrhagic fever viruses (Flexal, Guanarito, Junin, Machupo, Sabia)^h 30. Swine vesicular disease virus^u 31. Tick-borne encephalitis complex (flavi) viruses (Central European Tick-borne encephalitis, Far Eastern Tick-borne encephalitis, Russian Spring and Summer encephalitis, Kyasanur Forest disease, Omsk Hemorrhagic Fever)^h 32. Variola major virus (Smallpox virus)^h 33. Variola minor virus (Alastrim)^h 34. Venezuelan equine encephalitis virus^{hu} 35. Vesicular stomatitis virus (exotic): Indiana subtypes VSV-IN2, VSV-IN3^u 	<p>Prion</p> <ol style="list-style-type: none"> 1. Bovine spongiform encephalopathy agent^u <p>Toxins</p> <ol style="list-style-type: none"> 1. Abrin^h 2. Botulinum neurotoxins^h 3. Clostridium perfringens epsilon toxin^h 4. Conotoxins^h 5. Diacetoxyscirpenol^h 6. Ricin^h 7. Saxitoxin^h 8. Shigatoxin^h 9. Shiga-like ribosome inactivating proteins^h 10. Staphylococcal enterotoxins^h 11. Tetrodotoxin^h 12. T-2 toxin^h <p>Bacteria</p> <ol style="list-style-type: none"> 1. <i>Bacillus anthracis</i>^{hu} 2. Botulinum neurotoxin producing strains of <i>Clostridium</i>^h 3. <i>Brucella abortus</i>^{hu} 4. <i>Brucella melitensis</i>^{hu} 5. <i>Brucella suis</i>^{hu} 6. <i>Burkholderia mallei</i> (formerly <i>Pseudomonas mallei</i>)^{hu} 7. <i>Burkholderia pseudomallei</i> (formerly <i>Pseudomonas pseudomallei</i>)^{hu} 8. <i>Coxiella burnetii</i>^h 9. <i>Ehrlichia ruminantium</i> (Heartwater)^u 10. <i>Francisella tularensis</i>^h 11. <i>Mycoplasma capricolum</i> subspecies <i>capripneumoniae</i> (contagious caprine pleuropneumonia)^u 12. <i>Mycoplasma mycoides mycoides</i> small colony (MmmSC) (contagious bovine pleuropneumonia)^u 13. <i>Ralstonia solanacearum</i> race 3, biovar 2^a 14. <i>Rathayibacter toxicus</i>^a 15. <i>Rickettsia prowazekii</i>^h 16. <i>Rickettsia rickettsii</i>^h 17. <i>Xanthomonas oryzae</i>^a 18. <i>Xylella fastidiosa</i> (citrus variegated chlorosis strain)^a 19. <i>Yersinia pestis</i>^h 	<p>Fungi</p> <ol style="list-style-type: none"> 1. <i>Coccidioides immitis</i>^h 2. <i>Coccidioides posadasii</i>^h 3. <i>Peronosclerospora philippinensis</i> (<i>Peronosclerospora sacchari</i>)^a 4. <i>Phoma glycinicola</i> (formerly <i>Pyrenochaeta glycinis</i>)^a 5. <i>Sclerophthora rayssiae var zeae</i>^a 6. <i>Synchytrium endobioticum</i>^a <p>Restrictions</p> <p>Coming Soon: http://www.selectagents.gov/Select%20Agents%20and%20Toxins%20Restricted%20Experiments.html</p> <p>Exemptions:</p> <p>The following agents or toxins are exempt if the aggregate amount under the control of a principal investigator does not, at any time, exceed:</p> <ul style="list-style-type: none"> • 0.5 mg of Botulinum neurotoxins • 5 mg of <i>Staphylococcal</i> enterotoxins • 100 mg of abrin, <i>Clostridium perfringens</i> epsilon toxin, conotoxin, ricin, saxitoxin, shigatoxin, shiga-like ribosome inactivating protein, and tetrodotoxin • 1,000 mg of diacetoxyscirpeno (DAS)I and T-2 toxin <p>Exclusions:</p> <p>For complete list, go to: http://www.selectagents.gov/Select%20Agents%20and%20Toxins%20Exclusions.html</p> <p>* A virulent Newcastle disease virus (avian paramyxovirus serotype 1) has an intracerebral pathogenicity index in day-old chicks (<i>Gallus gallus</i>) of 0.7 or greater or has an amino acid sequence at the fusion (F) protein cleavage site that is consistent with virulent strains of Newcastle disease virus. A failure to detect a cleavage site that is consistent with virulent strains does not confirm the absence of a virulent virus.</p> <p>a = APHIS Plant Pathogen h = HHS Select Infectious Agent hu = HHS-USDA Overlap Agent u = USDA High Consequence Livestock Pathogen or Toxin</p> <p>donnelly 09/04, donnelly rev. 10/20/11</p>
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Moving Chemicals

To ensure safety and compliance with applicable regulations, all hazardous and non-hazardous chemical reagents will be packaged and transported by trained contractors (Lab Packing Contractors (LPC)) as part of the move. Once the chemicals have been transported to the new facility, researchers will be responsible for unpacking the chemicals for placement into their new laboratory.

Researchers must follow the procedure below for moving chemicals:

1. Dispose of all expired chemicals or chemicals you do not anticipate using through EH&S. For large numbers of chemical containers, call EH&S at 303-492-7845 or [email](#) before completing waste tags. EH&S has a segregation process for large numbers of chemical containers that will greatly reduce the amount of waste tags that need to be completed. Give us a call and we will come by and help ease the burden of getting rid of the chemicals you need to dispose of. If you have chemicals that are in good condition but are no longer needed, attempt to recycle them through other laboratories within your department. Depending on how busy EH&S is in assisting other laboratories with their move, this disposal process will take one week or longer for your chemicals to be removed. Please don't wait until the last minute!
2. Do not attempt to move outdated ethers, dry picric acid, or any other potentially unstable/reactive chemical compounds. If you have chemicals that are stored inside corroded containers or if the container is missing the lid, they cannot be removed until the lid or container has been replaced.
3. Never transport hazardous chemicals in your own personal vehicle! If you have an accident, your auto insurance may not cover you for the damages caused by the released chemicals or the regulatory fines.
4. Follow these guidelines to prepare the chemicals you will be moving for packaging and transport by the LPC:
 - a. All containers must be in good condition, tightly sealed/closed, and clearly labeled with proper chemical names.
 - b. Gather all of your chemicals safely into one or two areas of the lab (observing proper segregation and secondary containment of incompatibles).
 - c. The LPC will need room to work safely. They will need space in the hood and on the bench tops to segregate the chemicals before they are packaged. The packaging will consist of drums and boxes, and will take up quite a bit of space in the lab. It is best to have all of your non-hazardous equipment and supplies boxed up and ready to go before the LPC comes into your laboratory to package your chemicals.
 - d. The LPC will segregate and package all chemicals into drums for movement. The LPC will need move stickers completed by each research group for each drum, to ensure the correct placement in the new location. Due to segregation of various chemicals, please ensure an extra supply of completed move stickers is available to the LPC.
5. If you have hazardous chemicals that cannot be easily replaced and must be shipped to other than a CU-Boulder campus, then an approved hazardous materials carrier (i.e. FedEx) will be required. Arrangements for shipping hazardous materials in this case can be coordinated through the Material Management group within Facilities Management.

Unpacking Chemicals and Chemical Storage Guidelines

Researchers will be responsible for unpacking the chemical reagents from the shipping containers and coolers at their new laboratories. The shipping containers, coolers, vermiculite and other absorbents will be reused again by the Lab Packing Contractors (LPC) so it will be important to insure that all chemical reagents have been removed from the containers.

The proper segregation and storage of chemical reagents is important in the laboratory because the accidental mixing (leaking or broken containers) of incompatible chemicals may cause fires, explosions, or the production of toxic gases. The chemical storage guidelines provided in this document will help insure that incompatible chemical reagents will not have the chance to react while they are being stored in the laboratory.

Researchers should follow these guidelines when unpacking chemical reagents from the shipping containers:

1. Have flammable rated storage cabinets properly set up so that flammable solvents may be unpacked directly from the shipping container into the flammable cabinet.
2. Pre-plan where the chemical reagents will be stored inside the laboratory.
3. If vermiculite was used, avoid pouring the vermiculite out of the shipping containers, as this will create vermiculite dust which is considered an irritant. Consider wearing a dust mask while unpacking the reagent bottles, and unpack the containers directly in front of a fume hood.
4. For extremely hazardous, toxic chemicals, or "Inhalation Hazards," unpack inside of a fume hood to avoid any potential fumes that may be present.
5. Notify EH&S immediately at 303-492-6025 (after-hours call 911) if you discover a broken or leaking chemical reagent container inside the shipping container. Replace the cover on the shipping container to control the release of toxic vapors.
6. It is critical that the researchers thoroughly check each empty shipping container for chemical containers hidden inside the packing materials. The shipping containers and packing materials will be reused again by the LPC.
7. Leave all packing materials inside of the empty shipping containers, and if possible remove the hazard/shipping labels from each container. Place empty shipping containers into a central area of the lab, the LPC will come by on a weekly basis to collect the empty shipping containers for reuse.



General Chemical Storage Guidelines

1. Typically, chemical reagents are segregated into separate chemical storage cabinets by the following hazard classes in order to avoid unwanted chemical reactions:
 - a. Flammable solvents and combustible organic solvents
 - b. Acids
 - c. Bases or caustics
 - d. Oxidizers
 - e. Solid chemical reagents
 - f. Aqueous liquid reagents (non-flammable)
2. Avoid storing chemicals of different hazard classes together in the same storage cabinet or work space. If separate storage cabinets are unavailable, use plastic pails or tubs as a means of secondary containment to segregate incompatible chemicals from one another.
3. Store solid chemicals together on laboratory shelves or inside storage cabinets. Oxidizers (nitrates, nitrites, permanganates, etc.) are usually segregated from all other chemicals and are collected together in a plastic tub.
4. Do not place any chemical reagents into storage until they are plainly and permanently labeled with the full chemical name. Chemical waste containers must also be properly labeled as "Hazardous Waste" or by using the UCB Hazardous Waste Tag.
5. Do not store chemical reagents or chemical waste containers inside the chemical fume hood. Chemical fume hoods are active work areas that need to remain clean. Chemical fume hoods that are storing excessive containers or equipment may significantly reduce the airflow inside the hood or they may create unwanted eddy currents that release contaminants back into the room.
6. Do not store old or expired chemicals. Dispose of all unneeded chemicals promptly through EH&S by filling out a Hazardous Material/Waste Tag. For disposal of large stocks of unwanted chemical reagents, contact the Hazardous Materials Group (303-492-7845 or [email](#)) to schedule an appointment to have the chemicals segregated before filling out waste tags.
7. Do not store chemical reagent containers holding liquids above eye level or on the floor. If you must store containers of liquids on the floor, use a plastic secondary containment to control spills in case the container is accidentally broken.
8. Secure large compressed gas cylinders to the wall (or a sturdy support) with a strap, unless it is secured with a stand. Small lecture bottles of toxic compressed gases should be stored underneath the chemical fume hood.



Flammable Liquid Storage Guidelines

Flammable liquids need to be stored inside approved fire rated cabinets in order to control fires. Researchers should plan on moving existing flammable storage cabinets and purchasing additional flammable storage cabinets as needed.

The following terminology is used to describe flammable solvents:

Flash Point is the temperature at which a liquid or volatile solid gives off enough vapors to form an ignitable mixture with air.

Flammable Liquids are organic solvents which have a flash point of less than 140°Fahrenheit. The lower the flash point of an organic solvent, the greater the potential fire hazard. Most alcohols have flash points below room temperature, therefore spills must be handled with caution because a fire may occur if a source of ignition is present (spark or flame). Since ethyl ether has a flash point of minus 49°Fahrenheit, even when this solvent is stored inside a freezer there would be enough vapors present from a leaking container to cause a fire should a source of ignition be present.

Combustible Liquids are organic solvents which have a flash point of greater than 140°Fahrenheit and less than 200°Fahrenheit. The lower the flash point of a combustible liquid the greater the potential fire hazard. 37% formaldehyde is a combustible liquid. Many organic acids (acetic acid) also meet the classification of a combustible liquid.

Peroxidizable Solvents have chemical structures that are prone to react with atmospheric oxygen or light to form unstable peroxide-products during storage. A limited number of organic solvents (ethyl ether, isopropyl ether, dioxane, furan, tetrahydrofuran, etc.) form unstable peroxides upon storage. If shock-sensitive peroxide crystals are disturbed or heated (distillation), an explosion may occur. Mark the outside of the container with both the date of acquisition and date opened for all containers holding peroxidizable solvents. Purchase peroxide forming solvents in small quantities (enough for immediate use only) and dispose of them in an appropriate time period (one year or by expiration date).

Flammable and Combustible Liquid Storage – Store flammable and combustible liquids together and away from all oxidizers or oxidizing acids (nitric acid, chromic acid, perchloric acid). Additional approved storage cabinets must be purchased by the laboratory.

Non-flammable solvents (chloroform, methylene chloride, etc.) may be stored with flammable liquids if you have adequate storage space.

Refrigerators and Walk-in Coolers **cannot** be used for the storage of flammable liquids. Refrigerators and freezers should be considered a potential source of ignition, which may cause a leaking solvent container to ignite. Only refrigerators and freezers which are rated to store flammables/combustibles (i.e. they have been manufactured or modified to remove potential ignition sources in their interior spaces) can be utilized for this purpose.



Common Flammable Solvents (not all-inclusive)

Alcohols – methanol, ethanol, propanol, butanol, amyl alcohol, hexanol

Aldehydes and Ketones – acetaldehyde, acetone, methyl ethyl ketone, MIBK

Alkanes (hydrocarbons) – butane, hexane, heptane, octane, nonane, ligroin, naphtha, petroleum naphtha, petroleum ether, petroleum distillates, pentane, gasoline

Aromatics – benzene, bromobenzene, cumene, pyridine, toluene, xylene

Ethers – ether, ethyl ether, methyl ether, isopropyl ether, ethylene glycol monomethyl ether, cellosolve

Highly Toxic – acrolein, carbon disulfide, ethyleneimine, ethylene oxide

Miscellaneous – glacial acetic acid, acetyl chloride, acetonitrile, cyclohexane, dichloroethane, dioxane, ethyl acetate, furan, methyl methacrylate, propylene oxide, tetrahydrofuran, triethyl amine, (older scintillation cocktails)

Common Combustible Liquids (not all-inclusive)

Organic acids – acetic acid, formic acid, propionic acid, butyric acid

Miscellaneous – acetic anhydride, dimethylformamide, diesel fuel oil, ethylenediamine, 37% formaldehyde, isoamyl alcohol, kerosene, mercaptoethanol, mineral spirits, phenol, pseudocumene

CU-Boulder Requirements for Cold Storage of Flammable Liquids

Flammable liquids cannot be stored in lab refrigerators, unless:

- a. The refrigerator is specifically designated as a flammable materials storage refrigerator which complies with National Fire Protection Association (NFPA) 45, and is Underwriter's Laboratory (UL) listed, -or-
- b. The refrigerator is specially designed as being an explosion-proof refrigerator and complies with OSHA 29 CFR 1910.307 and is UL listed for Class 1, Groups C and D hazardous locations, -or-
- c. The refrigerator has been modified by an approved service provider to remove ignition hazards per EH&S and UCB Fire Marshall requirements.

Flammable liquids cannot be stored or used in cold rooms, unless:

- a. The cold room's electrical and refrigeration equipment is specially designed as being explosion-proof. The unit must comply with OSHA 29 CFR 1910.307 or UL for Class 1, Groups C and D hazardous locations, -and-
- b. The room must be mechanically ventilated, providing 100% outside air, at an exhaust rate of at least 6 changes per hour at the point of use.
- c. These rooms require design approval from EH&S prior to installation or construction.

For further clarification, please contact EH&S at 303-492-6025.



Acid Storage Guidelines

Acids must be segregated from bases in order to prevent unwanted neutralization reactions and corrosive vapors from forming. Oxidizing acids (e.g. nitric, chromic, perchloric) should not be stored together with flammable liquids. Perchloric acid becomes explosively unstable in concentration of higher than 70 percent, so do not store them next to strong dehydrating agents such as concentrated sulfuric acid or phosphorus pentoxide. Hydrochloric acid is somewhat volatile and it should be stored inside a vented cabinet whenever possible to reduce corrosion. If you must store acids and bases together due to limited storage space, place all of the containers of one hazard class into plastic trays for secondary containment. Do not store acid containers next to metal natural gas lines.

1. Segregate oxidizing acids (nitric, perchloric, chromic acid, chromerge) from organic acids (acetic, formic, etc.) to prevent fires. Many organic acids are also classified as combustible liquids so they should be stored inside fire rated storage cabinets.
2. Acids must be segregated from bases to prevent the generation of heat and toxic gases.
3. Do not store acids near any cyanide or sulfide containing chemicals in order to prevent the generation of highly toxic hydrogen cyanide or hydrogen sulfide gas.
4. Do not store concentrated acids next to household bleach, as mixing will generate highly toxic chlorine gas.
5. Do not store concentrated acids next to window cleaner or ammonium hydroxide, as mixing will generate highly toxic chlorinated amine gas.

Mineral Acids – hydrobromic, hydrochloric, hydrofluoric, hydriodic, nitric, perchloric, phosphoric, sulfuric

Organic Acids – formic, acetic, propionic, butyric, valeric, hexanoic, oxalic, trichloroacetic, citric acid (Many organic acids are also classified as combustible liquids so they should be stored in fire rated cabinets.)

Water-reactive acids – chlorosulfonic acid, fuming sulfuric acid, acetic anhydride

Oxidizing Acids – nitric acid, perchloric acid, chromic acid, chromerge

HCl, HBr, HI hazard – Concentrated HCl, HBr and HI should be handled with care prior to opening a new container to prevent gas and liquid from spraying out of the container. All of these aqueous acids are prepared by dissolving the acidic gases into water. Containers of concentrated acids packaged at sea level may be under pressure when opened in Boulder (5,430 feet above sea level).



Bases and Caustic Storage Guidelines

Storage of Bases – Bases must be segregated from acids in order to prevent unwanted neutralization reactions and corrosive vapors from forming.

Common bases include ammonia, calcium oxide, potassium hydroxide, sodium hydroxide, sodium carbonate, sodium phosphate (tribasic), amines and ammonia derivatives

Ammonium hydroxide hazard – Concentrated ammonium hydroxide (30%) containers should be cooled prior to opening to prevent ammonia gas and liquid from spraying out of the container. Ammonia is a gas, and its solubility in solution is temperature dependent. At elevated temperatures, a container of concentrated ammonium hydroxide may be under pressure.

Oxidizer Storage Guidelines

Storage of Oxidizers – Store oxidizers together in a cool area away from all other chemicals. Oxidizers should be placed together in a secondary containment tray. Note that some oxidizers are not compatible with one another.

Common Oxidizers (not all-inclusive)

Nitrates – ammonium, barium, cadmium, calcium, chromium, copper, ferric, lead, magnesium, mercury, nickel, potassium, propyl, sodium, uranyl, zinc

Nitrites – ammonium, barium, calcium, potassium, sodium

Bromates – ammonium, barium, calcium, potassium, sodium, zinc

Chlorates – ammonium, barium, calcium, potassium, sodium, zinc

Chlorites – calcium, sodium

Dichromates – ammonium, ferric, potassium, sodium

Iodates – ammonium, ferric, potassium, sodium

Perborates – sodium, zinc

Perchlorates – ammonium, barium, calcium, cesium, lead, magnesium, potassium, sodium

Peroxides (dioxides) – barium, calcium, hydrogen peroxide, lead, lithium, manganese, magnesium, potassium, sodium, zinc

Permanganates – ammonium, potassium, sodium

Organic Oxidizers – amyl nitrate, benzoyl peroxide, butyl perbenzoate, cumene hydroperoxide, peroxyacetic acid

Oxidizing Acids – nitric acid, perchloric acid, chromic acid, chromerge

Miscellaneous oxidizers – household bleach, bromine, fluorine, chromic acid, chlorine trifluoride, chromium trioxide, mercuric oxide, osmium tetroxide, periodic acid, nochromix



Solid Chemical Storage Guidelines

Some solid chemicals may react when mixed with water or corrosives to generate either flammable or toxic gases. It is important not to store aqueous liquids or corrosives with water-reactive chemical reagents, to help prevent the generation of hazardous gases.

Water-Reactive Flammable Compounds – Some chemicals generate flammable gases (hydrogen) on contact with water, therefore they should be segregated from corrosives and aqueous liquids to prevent fires and/or explosions.

Common Water-Reactive Flammable Solids (not all-inclusive)

Alkali Metals – lithium, sodium, potassium, rubidium, cesium

Borohydrides – aluminum, calcium, lithium, potassium, sodium

Carbides – calcium, lithium (generate acetylene gas)

Hydrides – aluminum, calcium, lithium, potassium, sodium, zirconium

Methoxides or methylates – sodium or potassium salts of methanol

Ethoxides or ethylates – sodium or potassium salts of ethanol

Water-Reactive Toxic Solids – Water soluble cyanides, sulfides and phosphides generate extremely toxic gases on contact with water or corrosives.

Common Water-Reactive Toxic Solids (not all-inclusive)

Cyanide compounds (water soluble) – Calcium, mercuric, ferric, potassium, sodium, silver, zinc
Keep away from acids as they generate highly toxic hydrogen cyanide gas.

Sulfide compounds (water soluble) – ammonium, calcium, magnesium, potassium, sodium
Keep away from acids as they generate highly toxic hydrogen sulfide gas.

Phosphide compounds – aluminum, calcium, sodium, stannic
Keep away from water or acids as they generate highly toxic phosphine gas.

Miscellaneous Water-Reactives – aluminum chloride (anhydrous), lithium silicon, sodium amide, sodium dithionite, sodium



Final Lab Clearance Checklist

Researchers must ensure that all hazardous materials, equipment, and supplies are properly removed from their former lab spaces. All hazardous materials must be submitted for proper disposal and all equipment must be free from contamination. Equipment that isn't moved to the new location must be properly disposed of through the Property Services Department, or approved to be left behind by the applicable departmental liaison. EH&S staff and departmental liaisons for each location will inspect all spaces to ensure compliance. **All costs associated with laboratory spaces that have been improperly abandoned and require cleaning services, removal of hazardous materials or disposal of equipment will be charged back to the appropriate department.**

Department _____ Building/Room _____ P.I. _____

- All laboratory equipment and supplies have been removed from the lab spaces. Remaining equipment and supplies are approved by the appropriate departmental liaison or building proctor.
- Biological materials have been removed and proper decontamination procedures have been completed on remaining work surfaces and equipment.
- All chemicals and hazardous wastes have been removed from the lab spaces. This includes all fume hoods, cabinets, drawers, shelves, SAA's, fridges/freezers, etc.
- No chemical residues or spills are evident on lab work surfaces; all former chemical spills have been appropriately decontaminated.
- All radioactive materials have been removed from the lab spaces. All radioactive decontamination procedures have been performed, including documented LSC/wipe survey results. All radioactive signage has been removed as appropriate.
- Trash has been properly disposed of in trash receptacles.

X

Dept. Liaison / Building Proctor Rep.

Date:

X

Environmental Health & Safety Rep.

Date:

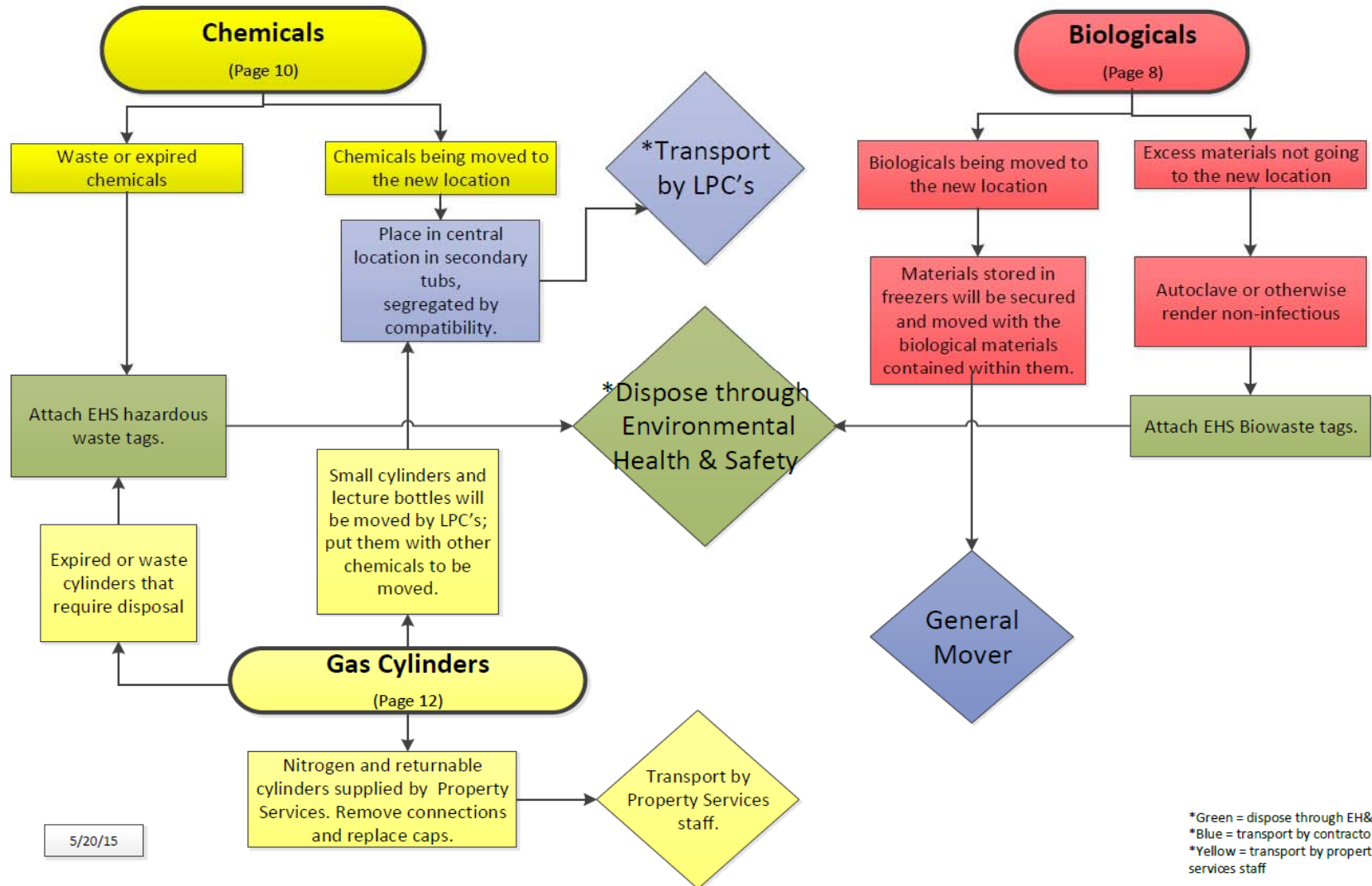


Laboratory Move Summary Flow Chart

Lab Equipment/Items

Laboratory Move Summary Flow Chart

Chemicals, Biologicals, & Gas Cylinders





Environmental Health & Safety

UNIVERSITY OF COLORADO **BOULDER**

Lab Packing

Guide





LAB PACKING:

1.5 cubic feet “book” boxes, 3.1 cubic feet boxes for larger glassware, SpeedPaks, bubble wrap, anti-static plastic bags and labels will be made available to each move group. These will be delivered to centralized locations: *please identify an area within your department (i.e., conference room, vacant room) where these can be delivered.*

- The size of the “Book Box” used in office/lab relocation automatically limits the box’s weight capacity to approximately 50 pounds. If you are re-using boxes from within your office space, limit cartons when possible to a maximum weight of 50 pounds to make handling easier. Use boxes that can be closed.
- Start with infrequently used items. Build up in layers, with heaviest items on the bottom and lightest on top.
- The 3.1 cubic ft. boxes are designated for larger glassware items (glassware too large for the 1.5 cubic ft. boxes) **ONLY**.
- **Glassware** should be packed separately from other types of items. There will be special tags that say “GLASS” that will be affixed to any box containing glass. Wrap glassware with bubble wrap, but don’t use tape. *Bubble wrap for glassware will be **RECYCLED**.* SpeedPaks will be staged throughout destination specifically for the collection of bubble wrap.

Please place a “Glass” label on any boxes/containers used for packing glassware to ensure proper identification.

This means a total of 4 labels will be placed on each box: 2 labels with your destination information placed on opposing ends of the box, and 2 labels, directly above or below the 1st set identifying the contents as ‘Glass’.



Prestige
Corporate Relocation
303-469-5599





- SpeedPaks are large, open-top, triple corrugated cardboard boxes that sit on a flat 4-wheel dolly. SpeedPaks are for lightweight, bulky items such as plastic ware.



- **Instruments & Equipment** should be unplugged and wrapped with a double layer of bubble wrap. The most effective way to protect equipment with bubble wrap is to use two layers with the bubbles facing into each other – the one flat, skin layer will be against the equipment and the second facing out. Do use tape to secure the bubble wrap on equipment. Place a moving tag (as shown on following pages) on the equipment. Prestige will place instruments & equipment into the SpeedPaks, with additional padding, at the start of the move; and will remove the items from the SpeedPaks and place on the designated bench at destination. **Green tag equipment should have both the green tag and the moving label visible to move crews.**

Examples of equipment that should be bubble wrapped:





Examples of equipment that should be bubble wrapped, cont'd:



- **Microscopes** should be unplugged and bubble wrapped. Remove any protruding pieces from your equipment (i.e., eye pieces) and all other removable parts bubble wrap independently, and place in a box and labeled to correspond to the microscope. *As with the glassware, please mark all component boxes with a 'Fragile' label: one on each end of the box, directly above or below your destination labels.*



Prestige will place Microscopes into the SpeedPaks, with additional padding, at the start of the move; and will remove them from the SpeedPaks and place on the designated bench at destination. If you have a case for the microscope, please pack per manufacturer's instructions and label the case.

Prestige
Corporate Relocation
303-469-5599





- **Centrifuges** should be prepared for the move by their Vendor. Once prepped for the move, Prestige will pad wrap and shrink wrap each unit then use Roll-A-Lifts to lift the unit to an e-track four-wheel dolly where the centrifuge will be 'locked' into place with moving straps.



Roll-A-Lift



e-track dolly

General Packing Instructions:

- Make sure your boxes are packed firmly in order to keep their contents from shifting during the move. Avoid overloading the carton, but aim for a firm pack; the cover should close easily without forcing, but should not bend inward.
- As you pack, be sure no sharp points, edges or rims are left uncovered. Wind extension cords, and "plug" each end into the other so the prongs do not suffer or cause damage.
- Pack the contents of all cabinets, shelves, drawers, lateral files & storage cabinets – **except chemicals** (please see Chemical Packing section, following).



LAB LABELING:

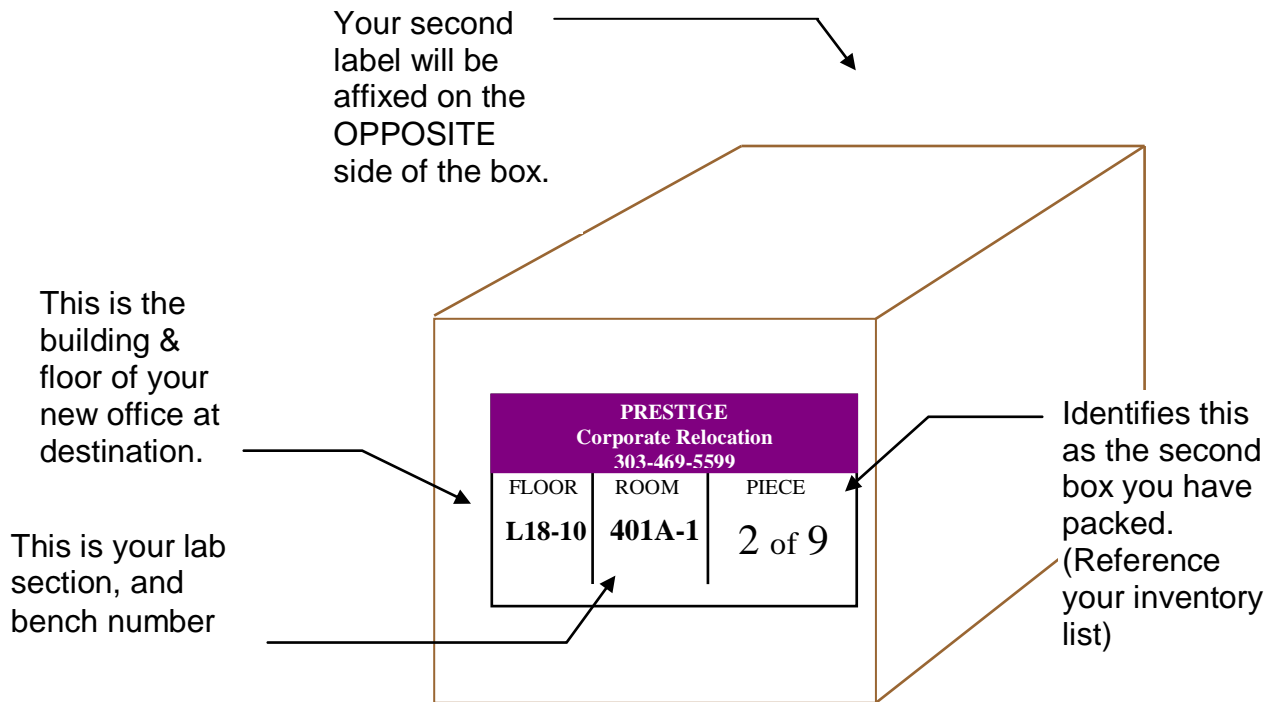
When preparing your boxes to be moved, labeling is extremely important. DO NOT affix a label to the top or bottom of a box, as the labels will be useless when the boxes are stacked. **Please use two labels per box, placing one on each of the shorter ends.**

Be sure to label each box according to its desired destination. This makes unloading a much quicker process. As you begin to pack, have in mind where you would like the contents of each of the boxes to be located at destination, then number your boxes accordingly.



FILLING OUT THE LABEL:

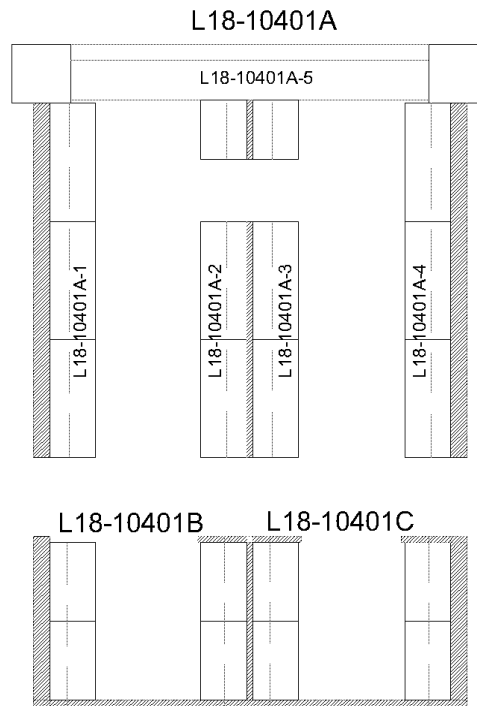
- ⇒ **Floor:** Indicating the **destination** floor (and wing, if applicable).
- ⇒ **Room:** This can be either a Room number or a Cubicle number, or both as applicable.
- ⇒ **Piece:** The box number, corresponding to your personal inventory.
- ⇒ **Name:** To help eliminate confusion, we ask that you write your last name over the colored portion of the label.





LAB EQUIPMENT LABELS:

- ⇒ **Floor:** Indicating the **destination** building & floor. (L18-10 in example below).
- ⇒ **Room:** This refers to the lab “bay” number (‘401A’ with ‘-1’ to indicate that it goes on bench #1, below)
- ⇒ **Piece:** The box number, corresponding to your inventory



TYPICAL LAB SECTION LAYOUT

TYPICAL LAB SECTION LAYOUT



Use equipment labels provided to your Move Coordinator to identify where each piece of equipment needs to be placed. One label should be placed on the equipment to be moved, and a matching label should be posted on the wall or bench at the new site.

CHEMICAL PACKING AND RELOCATION:

A specially licensed sub-contractor (Clean Harbors) will be packing and relocating lab chemicals. In addition to the requirements listed in the UCB Environmental Health & Safety Division's move guide you will need to provide or do the following:

- A completed inventory of chemicals is required from each lab in advance of the move.
- Each container must be labeled with the full chemical name or provide a chart with the full chemical name that corresponds to what is actually in the container. (e.g., M9 from biochemistry lab)
- Provide a complete list of chemicals that will be shipped for each lab; highlight any and all materials that need to be shipped cold.
- On the shipping list, include the size of each container, instead of how much is in it, and give the quantity of containers.
- All containers must be sealed or closed with a properly fitting lid.
- Gather all chemicals at a central location in each lab. Chemicals may be grouped according to which area of the new lab they will be placed. Provide a completed moving label (leave on the counter with the chemicals) for the new location. The label will be placed on the barrel.
- Have all chemicals that are to be disposed of removed prior to move day (weeks in advance if possible).
- The move contractors will not move any gas cylinders, radioactive materials, infectious materials, outdated chemical reagents or chemical wastes, select agents, or controlled substances. These items must be identified to the appropriate staff and addressed well in advance of the move.



LIQUID NITROGEN DEWARS MOVE PROCESS



To move the numerous Cryogenic Liquid Nitrogen Vessels, Prestige has created EthoFoam inserts, specially fitted to our SpeedPaks. Because the lids of the vessels won't lock down, successful movement is a major concern.



Prestige brought in our crating specialist, who created customized foam inserts that could be built-up in layers to accommodate the differing sizes of the vessels to be moved safely.

Please do not fill your liquid nitrogen tanks prior to your move! We prefer that your tanks be no more than ½-full at the time of the move. Prestige crews will pack your tanks into Speedpaks either with the ethofoam inserts shown above, or with moving blankets packed around them. We will move one tank per SpeedPak.



REFRIGERATOR MOVES:

Please follow UCB Environmental Health & Safety Division's guidelines for relocation of chemical and hazardous materials for your refrigerated items too.

Refrigerators must be emptied of all contents before moving. Coolers will be provided to hold refrigerated items until refrigerators have been relocated, re-plugged and determined to be operating correctly. All coolers should be tagged with a moving tag and include the new location numbers for the refrigerator.

The following options are available to hold coolers of refrigerated items until equipment is back up and running:

- 1) Keep your coolers in your existing cold rooms until the refrigerator has been moved and back up and running. The coolers would be transported once the refrigerator is up and running
- 2) If you have more than one refrigerator, you can split the move of your refrigerators and keep items at the old location until the relocated units have been moved and are running, then transport all refrigerated items to the units at the new site, then move the remaining refrigerators.
- 3) You can share refrigerators with other groups and hold your items in someone else's refrigerator until yours has been moved and back up and running. Then you can store the other group's refrigerated items until their units have been moved.

FREEZER MOVES:

Freezers may be moved with their contents in place. Use packing paper (provided by Prestige) to secure and prevent shifting of the contents. Freezers will be labeled to identify their location at the new site. A limited number of freezers (**approximately 6**) will be moved each day, to facilitate any repairs or replacement if equipment failure occurs. Each group will need to prioritize which of their freezers will go 1st, 2nd, and so on.



Office Packing Guide

MOVING INSTRUCTIONS:

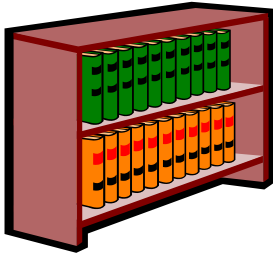
Completion of the following points -- AS THEY APPLY TO YOUR MOVE -- is essential in the performance of a safe and efficient move. Your help is certainly appreciated by all concerned.

- 1) *PERSONAL ITEMS ARE THE EMPLOYEE'S RESPONSIBILITY.* For your own protection, we suggest that you pack and move these items yourself. This includes plants!
- 2) Please leave your phones behind. OIT will be packing and moving your phone to your new location.
- 3) All typewriters, data equipment or general office equipment should have the power cords unplugged and coiled, and should be ready for transport. *Prestige will not unplug or disconnect any items.* If the items are not ready for transport, they will be left behind.
- 4) Pack all loose items that are on or in coat racks, storage cabinets, panels, bookcases and bulletin boards. Remove any wall hangings at or around your desk.
- 5) *Place coded labels on every item that you wish to have moved.* This includes floor mats, chairs, typewriters and wastebaskets. Please place the color-coded labels in visible positions. Boxes should be labeled on each of their shorter ends; Totes/Security Bins should be labeled on their label panel.

SUGGESTIONS AS YOU PACK...:



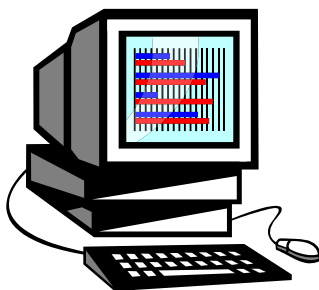
PERSONAL ITEMS ARE THE EMPLOYEE'S RESPONSIBILITY! You are welcome to use the boxes provided to pack your personal items. When packing, stand frames on edge in the carton. Label cartons clearly for easy identification, then carry these irreplaceable items with you to destination.



Books should be packed on edge, *alternating bound edge to open edge*. Pack books of the same general size together. Expensively bound volumes or those of special value should be individually wrapped before packing. If you are taking the bookshelf that the books are on, be sure to label it!



CD's and videotapes should never be stacked flat--**always on edge**. Place a layer of paper beneath them, an support both ends with a hard-back book or other similar item. Clearly label the box as fragile.



Do NOT Pack your computer. Please complete one (1) entire sheet of 4 labels with your destination information and leave it at your desk for the computer relocation team's use in packing. Two accessory bags will be provided for each computer. The first will be used for you to pack all your cabling, your mouse, cords, etc. A second bag will be provided to cover your hard-drive tower.

PACKING:

The bulk of your packing supplies are already on site and ready for distribution. In addition, Prestige will be delivering anti-static plastic bags and color-coded labels for your use. Contact your move coordinator to locate these packing materials.

- The size of the “Book Box” used in office relocation automatically limits the box’s weight capacity to approximately 50 pounds. If you are using boxes from within your office space, limit cartons when possible to a maximum weight of 50 pounds to make handling easier. Use boxes that can be closed.
- Pack the contents of all shelves, drawers, lateral files & storage cabinets.
- Start with infrequently used items. Build up in layers, with heaviest items on the bottom and lightest on top.
- Make sure your boxes are packed firmly in order to keep their contents from shifting during the move. Avoid overloading the carton, but aim for a firm pack; the cover should close easily without forcing, but should not bend inward.
- As you pack, be sure no sharp points, edges or rims are left uncovered. Wind electrical cords, and “plug” each end into the other so the prongs do not suffer or cause damage.
- Record the contents of each box in a personal inventory corresponding to your labels.
- Typewriters need to have carriages centered before they are moved.
- Any liquid contents must be properly packed and fully identified on the outside of the box. *Please fill out the ‘Special Needs’ form at the back of this packet for any liquid items that need to be moved.*

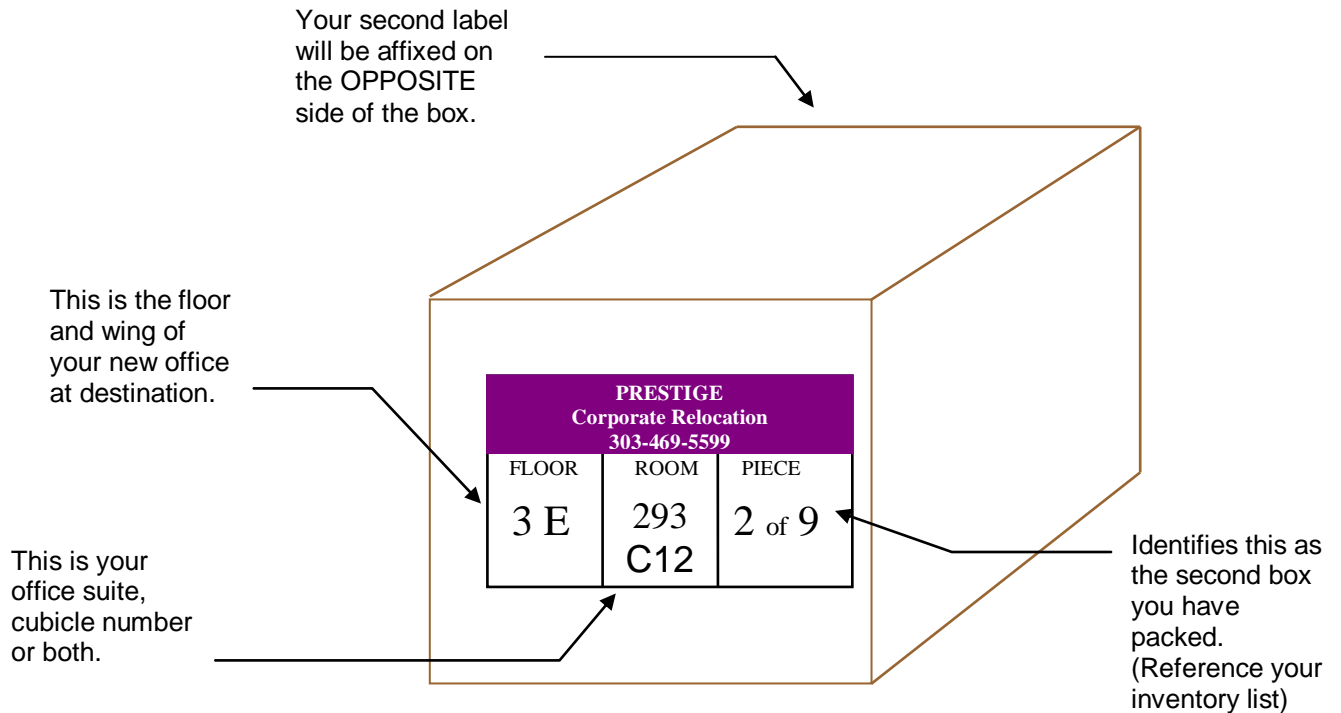
LABELING:

When preparing your boxes or totes to be moved, labeling is a must. Labels will be color-coded by your destination. It is important that you **DO NOT** affix a label to the top or bottom of the box, as the labels will be useless when the boxes are stacked. **Please use two labels per box, placing one on each of the shorter ends.**

Be sure to label each box/tote according to its desired destination.

FILLING OUT THE LABEL:

- ⇒ **Floor:** Indicating the **destination** floor (and wing, if applicable).
- ⇒ **Room:** This can be either a Room number or a Cubicle number, or both as applicable.
- ⇒ **Piece:** The box number, corresponding to your personal inventory.
- ⇒ **Name:** To help eliminate confusion, we ask that you write your last name over the colored portion of the label.



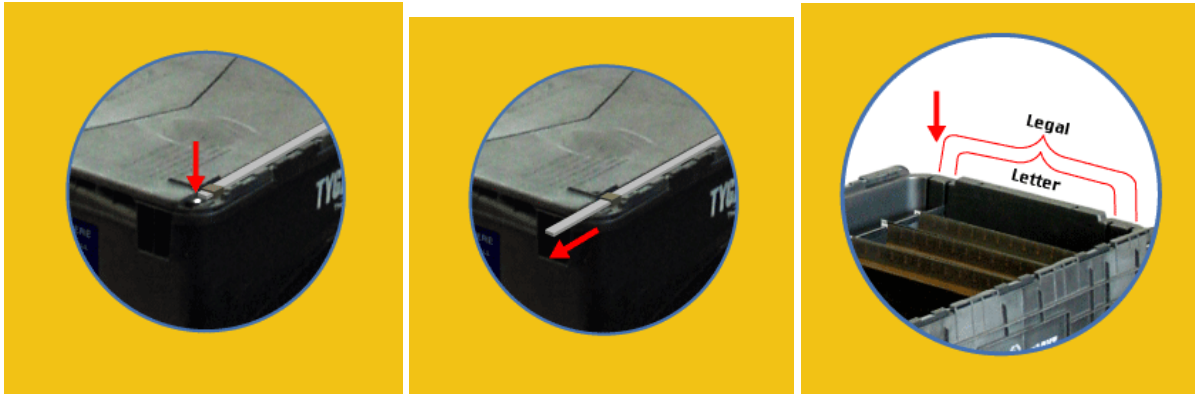
PACKING TO SECURITY BINS:



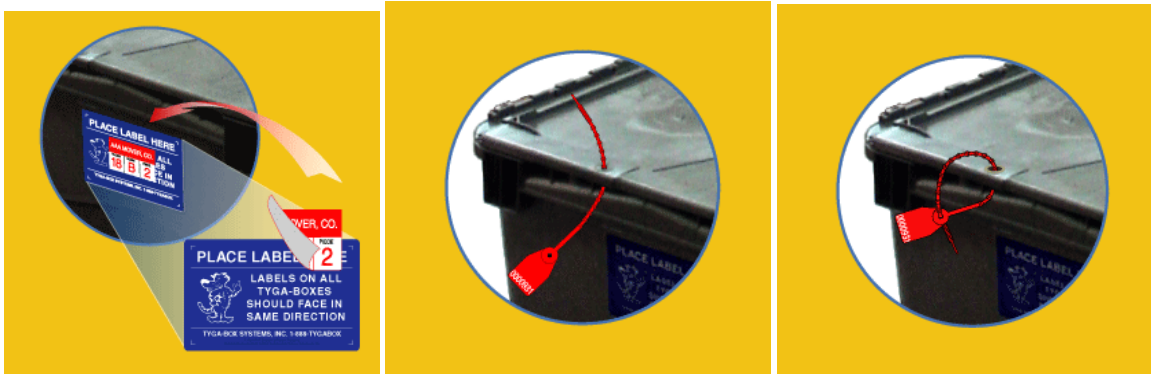
(1) Always begin with a set of wheels and an empty bin. Place the bin securely on the dolly, then (2) begin packing directly to the bin. Once the first bin has been filled, (3) close the lid and (4) place a second *empty* bin on top of the first to continue your packing. Do not stack more than four-bins high.



ADJUSTING FOR FILE SIZE



Push down on the File Rail Button to release the rail. Begin by pushing the rail out from the back, then pulling from the front once the end has cleared the bin. Finally, insert the rail into the appropriate slot for the file size you want to pack.



Please label the security bins on the Blue panel provided for this purpose. *If you need to secure your files, (legal, HR, Privacy Act)* please insert your security tie through the hole in the lid and lock it into place.

RETURNING THE EQUIPMENT



Refill your file cabinets directly from the security bins.

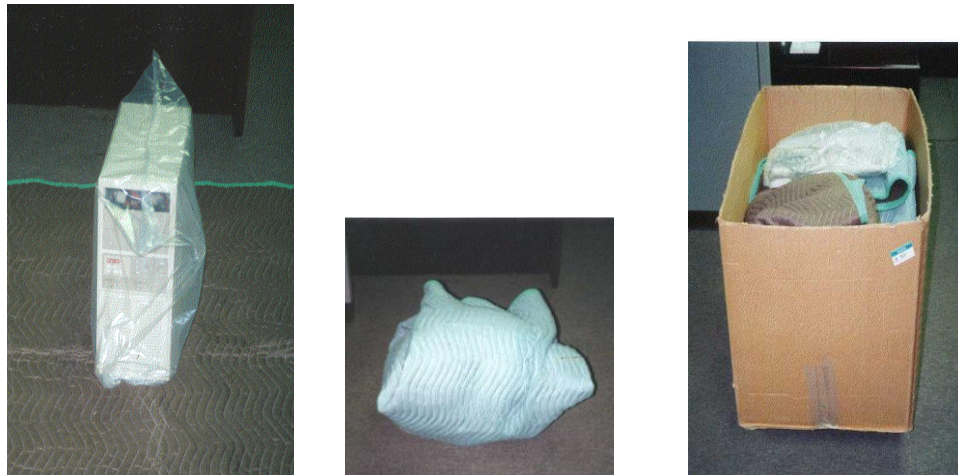
Please remove your move label, and replace the file rods.

Finally, please unpack in a timely manner so the equipment can be returned as quickly as possible.



COMPUTER RELOCATING PROCESS:

Computers are handled in a very specific manner. Unlike the majority of moving companies, Prestige does not use machine carts to relocate computers. Instead, monitors will be pad-wrapped and placed into “SpeedPaks” (38”x27”x30” **triple-corrugated cardboard boxes**). CPU’s will be placed in over-sized plastic bags (to eliminate any dust from the blanket pads contaminating the hard-drive), then pad-wrapped and placed into the same SpeedPak as the corresponding monitor. Individual sets of accessories (mouse and pad, keyboard, cables, etc.) will be placed into clear, plastic bags and added to these packs. Once the pieces are combined, they will be moved as a unit to destination.



This method of moving computers is much safer for both the computer and the origin and destination buildings. The triple corrugated box ensures that no damage can be done to the walls as the speedpaks are maneuvered through the halls to destination.

- Please be sure that all computers are powered-down by the time packing teams arrive.
- Please fill-out one sheet of 4 labels with your destination information, and leave it at your desk.

Computers will be the first items to be moved. A specialized computer team will be designated for the sole purpose of transporting computers.

EMPLOYEE MOVE CHECKLIST:

- DESK EMPTY?
- SUPPLY CABINETS CLEARED?
- LATERAL FILES AND BOOKCASES PACKED?
- WALL HANGINGS TAKEN DOWN?
- TYPEWRITER CARRIAGES CENTERED?
- COMPUTERS AND OTHER MACHINES DISCONNECTED AND PREPARED?
- LIQUIDS/POWDERS DRAINED FROM EQUIPMENT?
- PERSONAL ITEMS TAKEN HOME?

Now, take another look around....

- EVERYTHING TAGGED?

PERSONAL INVENTORY SHEET

Origin Cube: _____ Destination Cube: _____

Employee Name: _____

Move Coordinator: _____

Move Coordinator's Cube: _____

Reconfiguration Date: _____

Occupation Date: _____

Pre-Move Checklist: filled-in by customer; checked by Prestige Move Team Lead

Yes	No	N/A		Yes	No	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boxes (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical File (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Desk Chair (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lateral File (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guest Chair (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Book Case (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Floor Mat (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trash Cans (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Computer & Accessories (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Glass Tops (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other _____

Checked By: _____ Date: ___/___/___

Post-Move Checklist: filled-in by Prestige Move Team; left for customer's reference.

Yes	No	N/A		Yes	No	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boxes (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical File (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Desk Chair (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lateral File (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guest Chair (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Book Case (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Floor Mat (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trash Cans (#___)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Computer & Accessories (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other _____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Glass Tops (#___)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other _____

Checked By: _____ Date: ___/___/___

SPECIAL NEEDS / PROBLEM IDENTIFICATION FORM

Please use this form to make a Prestige representative aware of either a special need prior to your move date, or any type of problem encountered after your move date.

Top portion to be filled out by customer employee or Move Coordinator. Please fill out a separate form for each identified problem or concern.

Date Reported: _____ Employee Name: _____

Employee Phone #: _____ Move Group: _____

Office/Cube Number: _____ Move Coordinator: _____

Description: _____

This portion to be completed by Prestige

Assigned to: _____

Progress/Results: _____

Please return this form to Prestige or your Move Coordinator when complete.

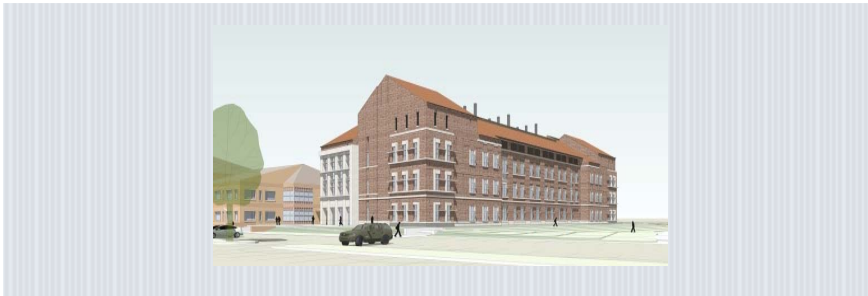
MacAllister – SEEC Transition

This is an exciting time for the University with the completion of the MacAllister-SEEC buildings. As with any move, there is a lot of planning and work that needs to be done to make the move go as smoothly as possible. To help with this transition, this flier has been developed by University Risk Management to provide you with move-related insurance and loss prevention information, along with contact information should you have further questions on this topic.

PROPERTY INSURANCE

Property insurance for the MacAllister-SEEC building move has been arranged with the designated moving companies. This coverage does not extend to University property that is moved in an employee's personal vehicle.

Your Prestige Move Coordinator, Toni Whitlock, can provide information, and answer questions, regarding packing methods, or moving sensitive equipment, to help avoid damages.



WORKERS COMPENSATION

To avoid personal injuries during any move, here are some key safety TIPS:

>Avoid lifting or moving awkward or heavy items yourself. The professional movers are trained and equipped for this move—let them do the heavy lifting!

>We realize that in packing and organizing, you may be moving some smaller, manageable items. If so, utilize proper lifting techniques, use a dolly, or ask for assistance. Lifting techniques can be found on various websites, including:

<http://moving.about.com/od/packingquicktips/a/safetytips.htm>

>Watch, Look, and Listen! Be aware of your surroundings and potential risks, and avoid rushing. Injuries are more apt to happen when a person is tired or distracted.

>If an on-the-job injury occurs, seek medical assistance and file **a workers' compensation** claim within 4 days at:
<http://www.cu.edu/risk/file-claim>

Who to Contact



IF ITEM IS LOST OR DAMAGED:

If a loss is discovered, contact Toni Whitlock, Move Coordinator, **Prestige** at 303-469-5599 or Cell at 720-810-3235. Damaged items should be left undisturbed, in box for Toni to examine.

For questions regarding the University's insurance, contact **University Risk Management**:

- Carolyn Peet
303-735-5900
Peet@cu.edu
- Chadd Medina
303-492-6138
Chadd.Medina@cu.edu

More information on University insurance can also be found on our website at:
<https://www.cu.edu/risk>



University of Colorado
BOULDER | COLORADO SPRINGS | DENVER | ANSCHUTZ MEDICAL CAMPUS

University Risk Management