



# LABORATORY RELOCATION GUIDE

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2015

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## LABORATORY RELOCATION GUIDE INTRODUCTION

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Relocating a laboratory can be a very complex undertaking and requires detailed planning. [Environmental Health & Safety \(EH&S\)](#) has developed this guide to provide information and assistance for laboratories during the relocation process. Whether the move is off campus, on campus, or the laboratory is closing permanently, this guide will provide you with the necessary information to ensure a safe and timely move in accordance with regulations.

### GENERAL GUIDELINES FOR MOVING A LAB

When informed your laboratory is moving, potentially relocating or closing, it is important to notify EH&S as soon as possible. Timely notification is key, as EH&S strives to deliver timely service and assistance. It's important to know the scope of the move and the materials being relocated. This information will determine the types of services that will be required. Please provide as many details as possible.

In addition it is important for all entities involved to understand their roles and responsibilities in the relocation process.

- **PI & Laboratory Staff**
  - Determine what items will remain, be moved or discarded.
  - Clean laboratory equipment in accordance with the EH&S Clearance Guidelines.
  - Coordinate services for specialty items including but not limited to compressed gas cylinders, biological safety cabinets, microscopes, etc.
  - Vacate the current space in accordance with the [EH&S Laboratory Vacating Procedures](#).
  
- **Department Administrator or Project Manager (if applicable)**
  - Coordinate Facilities Management services, office equipment moves and cleared equipment moves.
  - Provide Chart String information for payment of vendor services as needed.
  - Coordinate services for specialty items, including but not limited to, compressed gas cylinders, biological safety cabinets, microscopes, etc.
  
- **EH&S**
  - To ensure the move is completed safely and the vacated space is left safe and free of hazards.
  - Confirm and issue Equipment and Room Clearances.
  - Coordinate services with the Hazardous Material handlers and movers, unless otherwise indicated.
  - Provide signatures for hazardous material shipping documents as needed.

## Special Considerations



**EH&S Training** – Every member of the University community engaged in laboratory operations, including the handling, packaging and the relocation of hazardous materials, is obligated to participate in the University’s Safety Training program. At a minimum laboratory staff should have completed Laboratory Safety, Chemical Hygiene and Hazardous Waste Management Training (Rascal Course #:TC0950). Please visit the [EH&S Training Website](#) for more information on hazard specific training requirements.



**Personal Protective Equipment (PPE)** – The proper selection & use of PPE is covered in detail as part of Laboratory Safety Training. The appropriate use of PPE is critical in reducing exposure to laboratory hazards and represents the *last line of defense* against potential exposure. Appropriate attire & PPE **must** be worn when handling, packaging and relocating hazardous materials. For more information on PPE and the University’s Policy please visit <http://ehs.columbia.edu/ppe.html>.

## PHASES OF A LABORATORY MOVE

**Pre-Move Phase** - You've just learned that your laboratory is relocating or shutting down; this is the time where the planning and preparation begins. It is crucial to identify a person to coordinate and oversee all of the move operations. This person should be the main point of contact for the laboratory and will work with the Project Manager, if applicable, EH&S, and the moving company. If the laboratory is leaving the university, this person will also work with the EH&S department at the new institution.

Once notified, EH&S will schedule a meeting with the coordinator, PI and Project manager to discuss the move. This is the time to start identifying items that will be moved, discarded, or remain if identified as property of the department or University. We will also begin mapping out the relocation schedule. A physical walkthrough of the space will then be scheduled to verify the scope of the move.

In addition, the Pre-move phase includes ensuring the new laboratory is ready for occupancy. Please work with your [Research Safety Specialist](#) to ensure the new space is set up in accordance with EH&S guidelines at Columbia University or the new institution.

**Active Move Phase** – On the day of the move, a EH&S Representative will be on site to ensure that the move is being conducted safely. EH&S recommends a representative from the laboratory to be present as well.



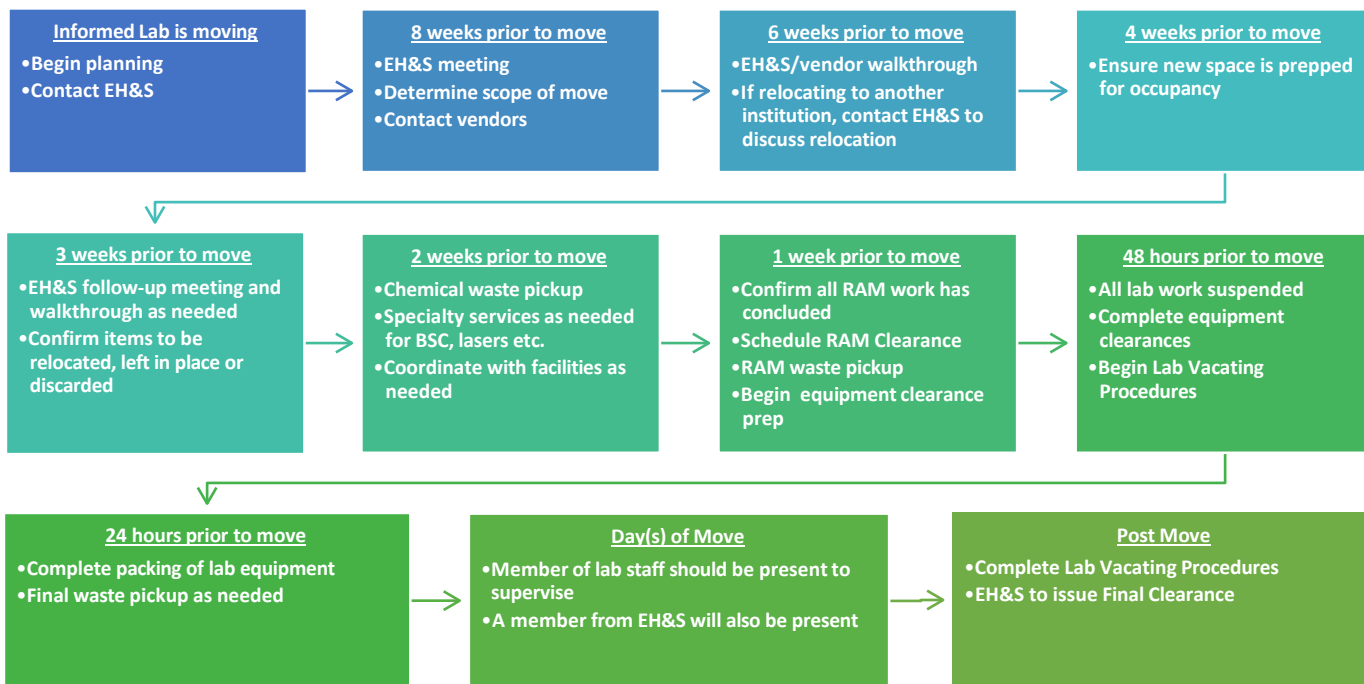
General movers, including Facilities, are **not** permitted to transport chemicals, radioactive materials, biological materials or un-cleared laboratory equipment (e.g. centrifuges, mixers, biological safety cabinets). In addition, said materials can only be transported in freight elevators, unless otherwise indicated by Facilities Management. Under **no** circumstances can chemicals or radioactive materials be transported via the University's Shuttle Bus, public transportation or in one's personal vehicle. For more information please contact your [Research Safety Specialist](#) for updated guidance. They can also advise on and/or coordinate the services with an approved, appropriately permitted transporter.

**Post-Move Phase** – Once the active move is complete, a post-move walkthrough will take place with representatives from the laboratory/department, EH&S and Facilities Management, if needed. It is important to ensure that the laboratory is exited in a state suitable for re-occupancy or renovation. Please see the [Vacating Procedures](#) section for more information.

It is important the laboratory is left in a condition suitable for renovation or occupancy by a new PI. In the event the laboratory is found not in suitable condition, EH&S will work with the responsible party to ensure the vacating process is completed properly. Please note, this may include the use of vendor at an additional cost. The final space Clearance will not be issued until the EH&S has verified the completion of the Vacating Procedures. Please see page 20 of the guide for more information on the Vacating Procedures.

# SAMPLE LABORATORY MOVE TIMELINE

The following is a representation of a laboratory relocation timeline under ideal circumstances. Please use the EH&S *Timeline template* to create a timeline specific to the needs of your laboratory.



## Laboratory Relocation Notes:

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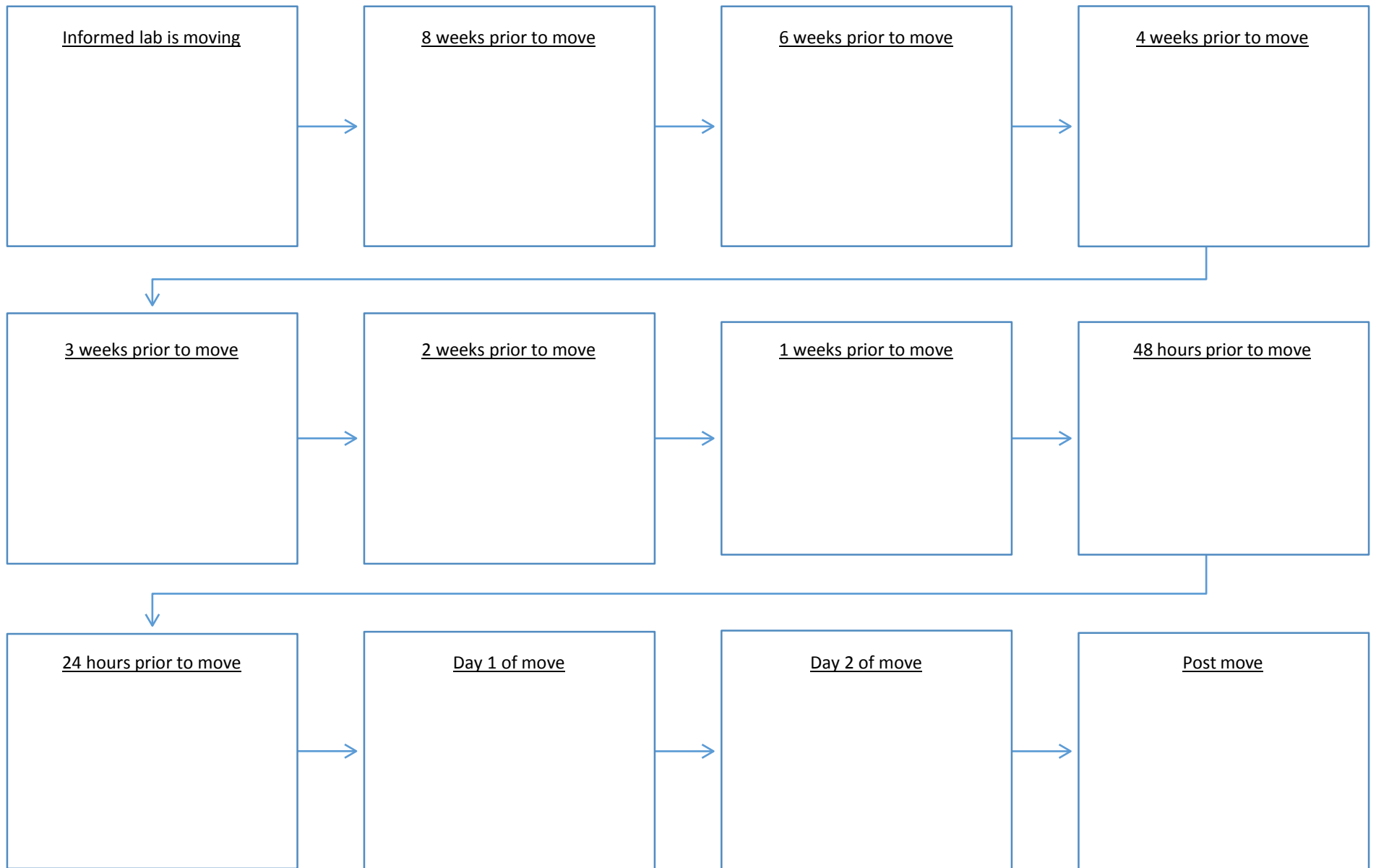
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# LABORATORY MOVE TIMELINE TEMPLATE





## MOVING CHEMICALS SAFELY

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After the laboratory has ended regular operations in preparation for the relocation, it is important to divide your chemical inventory into 3 categories: chemicals to be relocated, chemicals that can be transferred to other laboratories, and chemicals which can be discarded as waste. EH&S also requests the laboratory to take a complete inventory of all the chemicals to be relocated, including compressed gas cylinders, radioactive isotopes, and dry/solid chemicals.

All chemicals slated to be moved will need to be physically sorted into compatible groups in order to be transported. See the Chemical Storage and Segregation guidelines for additional details <http://www.ehs.columbia.edu/chemSegChart.pdf>. Segregation may **only** be done by trained lab staff who have completed Laboratory Safety, Chemical Hygiene and Hazardous Waste Management Training Rascal course code TC0950 or by the third party vendor, if required.

At the time of the laboratory walkthrough EH&S will determine if the chemical waste, including expired chemicals, and unwanted items can be managed internally or if a third party vendor is needed. EH&S will provide detailed instructions upon completion.



Under no circumstances can expired chemicals, chemical waste, chemicals with compromised containers or inherently waste like material be transported as part of the laboratory move. Please work with your [Research Safety Specialist](#) and/or Hazardous Material Specialist to determine the proper mode of disposal for these items.

### Procedures for Relocating Chemicals

- **Moving within a building or conjoined buildings** – Laboratory moves that **do not** require the use of public streets or sidewalks can be managed by trained laboratory staff with the assistance of EH&S. Examples include moving from one floor of a building to another & buildings connected by a bridge, hall, or tunnel. In the event you are unclear if your building meets this definition, please inquire with your [Research Safety Specialist](#).

Please note - the laboratory will be asked to employ a number of controls to ensure the move is conducted safely, including the use of personal protective equipment (PPE), rolling carts with raised edges, and secondary containment. In addition, hazardous materials are not allowed in passenger elevators. You may need to coordinate with Facilities to discuss the use of the freight elevators.

- **Moving from building to building using public streets** - If your relocation requires the use of public streets and/or sidewalks, the laboratory is required to use a Columbia University approved vendor. Speak with your [Research Safety Specialist](#) to identify an appropriate vendor based on the material being moved.
- **Moving from campus to campus** - If your relocation requires the use of public streets and/or sidewalks, the use a Columbia University approved vendor is required. Contact your [Research Safety Specialist](#) to identify an appropriate vendor based on the material being moved.



- **Leaving the University**

- **Moving to another institution** – Typically the receiving institution manages the coordination of the laboratory move. However, EH&S will request documentation verifying the vendor is appropriately licensed and trained to handle and move hazardous materials. In addition, EH&S reserves the right to stop a move that the department deems inappropriate and/or unsafe.
- **Closing of laboratory** – In the event the laboratory is closing, all chemicals will be disposed of as waste unless they are transferred to another laboratory for use. Please note, expired chemicals cannot be gifted and will be removed as waste. At the time of the initial laboratory walkthrough, EH&S will determine if a third party vendor is needed to manage the removal of chemical waste (this decision is based on the volume and types of chemicals being disposed of).

### Special Considerations



**Compressed Gas Cylinders** can only be moved using a cylinder transportation cart by trained laboratory staff. EH&S strongly advises **all** compressed gas cylinders be relocated by the supplier. In preparation, ensure all valves are closed & protected by securing the cap to the cylinder. In addition, all unwanted or empty cylinders must be returned to the supplier. EH&S does not manage the disposal of compressed gas cylinders, but can advise on disposal options under unique circumstances.



**Chemical Inventory Management & ChemTracker** are a vital part of laboratory operations on several Columbia University campuses. If your campus utilizes this system, it is important to ensure that your inventory is updated as part of the relocation process. Please work with your Research Safety Specialist or contact [chemtracker@columbia.edu](mailto:chemtracker@columbia.edu) for assistance.

## MOVING RADIOACTIVE MATERIALS SAFELY



The goal when relocating radioactive materials is to safely transport the materials to the new location and verify that all radioactive materials, waste, and contamination have been removed from the previous location. A few things to consider when moving radioactive materials at the University include:

- The PI will need to obtain authorization from the of Radiation Safety Officer (RSO) to move materials to a new location.
- For all relocations within the University, the Principal Investigator or their designee must submit an amendment to the permit application for non-human use of radioactive materials, available on the [Laboratory Research Radiation Safety website](#).
- Laboratory staff are required to survey the laboratory for contamination, and perform decontamination activities as needed prior to the move. Please refer to page 20 for more details on radiation exit surveys.

Begin by notifying the Office of Radiation Safety, with the assistance of your [Research Safety Specialist](#), as soon as the laboratory is notified it will be relocating or closing. Notification one month prior to your projected move date is ideal.

Next, please determine which radioactive materials you intend to relocate and which materials you intend to dispose of. Disposal of radioactive materials can be arranged by submitting a [Radioactive Waste Pickup Request](#) and should be placed no later than two weeks prior to your projected move date. Please note, for large scale radiation waste projects or for the disposal of unique isotopes, the use of a third party vendor may be required. Please speak to your [Research Safety Specialist](#) for more information.

### Procedures for Relocating Radioactive Materials

- **Moving within a building or conjoined buildings** - After approval is obtained from the Radiation Safety Officer, the laboratory can carefully package and hand carry the radioactive materials to the new location. Please note, only those who have completed and have current Radiation Safety Training (Rascal Code TC1750) can handle radioactive materials. EH&S can provide assistance if needed.
- **Moving from building to building using public streets** - For relocations within the same campus, the radioactive materials may be carefully packed and hand carried or moved with a cart to the new destination. Please note, only those who have completed and have current Radiation Safety Training (Rascal Code TC1750) can handle radioactive materials. EH&S can provide assistance if needed.
- **Moving from campus to campus** - For relocations requiring radioactive materials to be loaded onto a vehicle for transport on a public road, all applicable local, state, and federal hazardous material shipping regulations will apply. This involves selecting an appropriate shipping or transport vendor and coordinating with a trained representative of the Office of Radiation Safety, who will oversee the shipping process and will also include providing the appropriate signatures or shipping documents.

- **Leaving the University**

- **Moving to another institution** – Typically the receiving institution manages the coordination of the laboratory move, including the transfer of radioactive materials. However, the Columbia University Chief Radiation Safety Officer will request documentation verifying the following before releasing radioactive material for relocation:
  - The transporting vendor is appropriately licensed and trained to handle and move radioactive materials.
  - Proof, from the transportation vendor, that the material leaving Columbia University is not externally contaminated.

EH&S will contact the receiving institution's Radiation Safety Officer directly, to inform them radioactive material is a part of the relocation and inquire on the steps needed to bring radiation onsite. Columbia University will also request proof that the receiving institution is a permitted and/or licensed to possess radioactive material.

The laboratory may wish to gift isotopes to another permitted Columbia University Principal Investigator. Please refer to the policy for the [Loan and Transfer of Radioactive Materials](#) for detailed instructions. For more information on decommissioning a Radioactive Materials Laboratory, please review the [Policy on Shutting Down a Radioactive Materials Laboratory](#).

For relocations requiring radioactive materials to be loaded onto a vehicle for transport on a public road, all applicable local, state, and federal hazardous material shipping regulations will apply. This involves selecting an appropriate shipping or transport vendor and coordinating with a trained representative of the Office of Radiation Safety, who will oversee the shipping process. This will also include providing the appropriate signatures for shipping documents.

- **Closing of laboratory** – The laboratory may wish to transfer isotopes to another permitted Columbia University Principal Investigator. Please refer to the policy for the [Loan and Transfer of Radioactive Materials](#) for detailed instructions. It is important to know that all items not deemed appropriate for transfer will be discarded as [radioactive waste](#). For more information on decommissioning a Radioactive Materials Laboratory please review the [Policy on Shutting Down a Radioactive Materials Laboratory](#).

## MOVING BIOLOGICAL MATERIALS SAFELY



If Biological Materials are a part of your laboratory's move, the next step is to determine what material will be relocated, transferred to another PI or set aside for disposal. Once this process has occurred, all items to be relocated will need to be segregated into categories appropriate for transportation to the new location.

The relocation of Biological Materials can be managed in a number of ways; infectious vs non-infectious, by [Biological Safety Levels](#) or risk group, outlined in the [Biosafety in Microbiology & Medical Laboratories](#), or by their USDOT hazard shipping classification. For the purposes of this guide, the USDOT hazard shipping classification method is used. In the event the laboratory is unsure how to classify a particular agent, please contact your [Research Safety Specialist](#), who will work with a member of the Biological Safety Team to ensure accurate classification. More details can also be found in the [Biological Materials Shipping Manual](#).



The transport of biological materials by any mode of public transportation is **strictly prohibited**. In addition, please ensure all packages containing infectious materials are opened in a certified Biological Safety Cabinet, upon arrival to the new location.

### USDOT Hazard Shipping Classification

- **Exempt Human or Animal Specimens** - A human or animal specimen with a minimum likelihood of causing disease. In making such a determination, an element of professional judgment is required (e.g. patient history or source).
- **Biological Substance, Category B** - Any infectious substance and some Genetically Modified Microorganisms that do not meet the criteria for inclusion in Category A. This category also includes any human specimens infected with Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Human Immunodeficiency Virus (HIV), or other bloodborne pathogens not otherwise included in Category A. Human specimens that are being shipped for infectious disease screening are included in this category
- **Biological Substance, Category A** - Any material, including some Genetically Modified Microorganisms, containing a pathogen that is capable of causing life-threatening or fatal disease, or permanent disability in healthy humans or animals. Pathogens can include microorganisms (such as bacteria, viruses, parasites, or fungi) or other agents capable of causing disease in humans or animals, such as prions.

**Mandated Training Requirements** - All students, faculty, staff, and volunteers involved in any step of the shipping, or transportation of biological material at Columbia University must complete federally mandated training. These steps include, but are not limited to: preparing samples for shipping, preparing related paperwork, and/or signing to authorize shipments. Please review the [Biological Safety Manual – Training Requirements](#) for specifics on training requirements.



## Procedures for Relocating Exempt Human or Animal Specimens

- **Moving within a building or conjoined buildings** – Laboratory staff can transport materials, by hand or on a cart with raised edges, in a durable transport container that will prevent spillage if dropped. In the event the material needs to be relocated frozen or cold, a Styrofoam box with a tight fitting lid secured with tape is appropriate.
- **Moving from building to building using public streets** - Laboratory staff can transport materials by hand or on a cart with raised edges, in a durable transport container that will prevent spillage if dropped. In the event the material needs to be relocated frozen or cold, a Styrofoam box with a tight fitting lid secured with tape is appropriate. Transport by an approved licensed vendor is also acceptable.
- **Moving from campus to campus** - All material being relocated can either be shipped or transported by an approved vendor to the new institution. Please work with your Research Safety Specialist to determine the best and most effective mode of transportation. In the event shipping the material is most appropriate, staff are qualified to prepare and ship packages containing Exempt Human or Animal Specimens, following the completion of federally mandated training. Please review the [Shipping Training Matrix](#) for specifics on training requirements.
- **Leaving the University**
  - **Moving to another institution** - Material can be transferred to another Columbia University PI or laboratory. All material being relocated can either be shipped or transported by an approved vendor to the new institution. All remaining material will be discarded as [Regulated Medical Waste](#).
  - **Closing laboratory** - Material can be transferred to another Columbia University PI or laboratory. All remaining material will be discarded as [Regulated Medical Waste](#).

## Procedures for Relocating Biological Substance, Category B

- **Moving within a building or conjoined buildings** –Material in this category must be triple packed in a durable container to prevent spillage. Once packed, the laboratory staff can transport the material by hand or on a cart with raised edges. In the event the material needs to be relocated frozen or cold, a Styrofoam box with a tight fitting lid secured with tape is appropriate.
- **Moving from building to building using public streets** - Material in this category must be triple packed in a durable container to prevent spillage. Once packed, the laboratory staff transport the material by hand or on a cart with raised edges. In the event that the material needs to be relocated frozen or cold, a Styrofoam box with a tight fitting lid secured with tape is appropriate. Transport by an approved vendor is also acceptable.
- **Moving from campus to campus** - All material can either be shipped (e.g. Fedex) or transported by an approved vendor. Please contact your Research Safety Specialist to determine appropriate mode of transportation. If material will be shipped, staff are qualified to prepare and ship packages containing Category B substances, following the completion of federally mandated training.

Please review the [Shipping Training Matrix](#) for specific training requirements.

- **Leaving the University**

- **Moving to another institution** - Material can either be shipped or transported by an approved vendor to the new institution. Please work with your Research Safety Specialist to determine appropriate mode of transportation. In the event shipping the material is most appropriate, following the completion of appropriate training, staff are qualified to prepare and ship packages containing Category B substances.
- **Closing laboratory** - Material can be transferred to another Columbia University PI or laboratory. All ungifted material will be discarded as [Regulated Medical Waste](#).

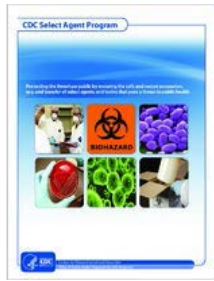
### Procedures for Relocating Biological Substance, Category A

- **Moving within a building or conjoined buildings** - Material in this category must be triple packed in a durable container to prevent spillage. Once packed, the laboratory staff transport the material by hand or on a cart with raised edges. In the event the material needs to be relocated frozen or cold, a Styrofoam box with a tight fitting lid secured with tape is appropriate.
- **Moving from building to building using public streets** – All Category A items must be triple packed and transported by an approved vendor. In addition, the Manager Biological Safety must be notified of such relocations. After review, EH&S will advise on any additional procedures and requirements that may apply to the relocation.
- **Moving from campus to campus** - Category A material can either be shipped or transported by an approved vendor. Please work with your Research Safety Specialist to determine the appropriate mode of transportation. If material will be shipped the Manager of Biological Safety must be notified. EH&S will prepare and ship all packages containing Category A specimens.
- **Leaving the University**
  - **Moving to another institution** - All material being relocated can either be shipped or transported by an approved vendor. Please work with your Research Safety Specialist to determine the best and most effective mode of transportation. In the event shipping the material is most appropriate, the Manager of Biological Safety must be notified. EH&S will prepare and ship all packages containing Category A specimens.
  - **Closing laboratory** - Material can be transferred to another Columbia university PI or laboratory. All ungifted material will be discarded as [Regulated Medical Waste](#).

Under **no** circumstances can Category A material enter the Regulated Medical Waste (RMW) stream directly. All Category A material must be autoclaved onsite prior to entering the waste stream and taken offsite for disposal. Please consult Biosafety for detailed instructions.



## Special Considerations



**Select Agents** – Please refer to the [Health & Safety Manual](#) for details on the University’s Select Agent program. Your [Research Safety Specialist](#) will work along with the Biological Safety Office to ensure all Select Agents are transferred or disposed of appropriately. Please note all recipients and senders of Select Agents must be registered in The Select Agent Program. For more information on the CDC’s Select Agent Compliance Program visit <http://www.selectagents.gov/compliance.html>.



**Transporting Temperature Sensitive Materials** – EH&S recommends several options for items requiring cold transport. The material can be shipped via FedEx on “Dry Ice”. Please refer to the [Biological Safety Manual – Training Requirements](#) for specifics on federally mandated training for dry ice and Dangerous Goods shipments. Please be advised that all packages containing “Dry Ice” and Dangerous Goods must be picked up directly from the laboratory. Laboratories can also choose to transport temperature sensitive materials in refrigerators, freezers or temperature controlled trucks via an approved vendor. Please speak to your [Research Safety Specialist](#) for information on a Columbia University approved vendor.

## MOVING CONTROLLED SUBSTANCES



The acquisition, use and disposal of Controlled Substances in New York State are strictly regulated by the New York State Department of Health (NYS DOH) Bureau of Narcotic Enforcement and the United States Department of Justice Drug Enforcement Administration (US DEA). The regulations are designed to prevent diversion of controlled substances through a variety of administrative and physical controls. If your laboratory move requires the relocation of controlled substances, the following **must** be taken into consideration:

- The license/permit holder is responsible for ensuring compliance with NYS and DEA regulations.
- The license/permit holder must notify both agencies regarding the laboratory move and the relocating of Controlled Substances. The same form can be used to inform both regulatory agencies and can be found at <https://www.health.ny.gov/forms/doh-4330.pdf>. The DEA may also be notified electronically: <https://www.deadiversion.usdoj.gov/webforms/jsp/regapps/common/updateLogin.jsp>.
- Once both agencies have been notified, an inspection of the new laboratory will be scheduled.



EH&S is **not** licensed to take possession of controlled substances. In addition, Controlled Substances **cannot** be left behind in the vacated spaces or **left unsecured** at any time. Please refer to the [Columbia University Controlled Substance Policy](#) for more information.

### Procedures for Relocating Controlled Substances

- **Moving within a building or conjoined buildings** – **Only** the license/permit holder can physically take possession of the material and transfer it to the new location.
- **Moving from building to building using public streets** - **Only** the license/permit holder can physically take possession of the material and transfer it to the new location. Please note, EH&S may recommend using a licensed vendor in the event the distance is deemed inappropriate.
- **Moving from campus to campus** - EH&S recommends the use of a licensed vendor. Please speak to your [Research Safety Specialist](#) for more information.
- **Leaving the University**
  - **Moving to another institution** – EH&S recommends the use of a licensed vendor. Please speak to your [Research Safety Specialist](#) for more information. Be advised, every state and institution's approach to controlled substance management varies. It is important that the license/permit holder contact the new institution specifics of their policy.
  - **Closing of laboratory** – For more information on the ensuring the proper handling of controlled substances as the laboratory closes please refer to the [Columbia University Controlled Substance Policy](#) or [https://www.health.ny.gov/professionals/narcotic/licensing\\_and\\_certification/docs/reverse\\_distributor.pdf](https://www.health.ny.gov/professionals/narcotic/licensing_and_certification/docs/reverse_distributor.pdf) for details on the proper method of disposal.



## MOVING EQUIPMENT



[Environmental Health & Safety](#), along with [Morningside Facilities](#) & [CUMC Facilities](#) Management, administer the University's Laboratory Equipment Clearance program. All contamination-prone laboratory equipment and potentially contaminated furniture must be cleared by EH&S prior to relocation or disposal. The following must be taken into consideration as part of the process:

- Determine if your equipment needs to be cleared by EH&S. For example, if the equipment was used in an office or had no potential for exposure to chemical, biological, or radioactive materials, clearance through EH&S is **not necessary**.
- Please note, if laboratory equipment is being moved within a building or conjoined buildings by appropriately trained laboratory staff, a clearance is **not** needed by EH&S.
- Arrangements for the general equipment move is managed by the lab, Project Manager or Departmental Administrator. Please visit the [Columbia University Purchasing](#) website for a list of approved vendors or contact Facilities management.

## CLEARANCES

**General Laboratory Equipment Clearance** - Clearances will ensure that any contamination-prone surfaces and equipment (e.g., centrifuges, incubators, and bench tops) are decontaminated prior to handling by non-laboratory staff. In general, the process requires the exterior surfaces of laboratory equipment be wiped down and cleaned with 70% ethanol or a freshly prepared 10% bleach solution prior to calling Environmental Health & Safety. Non-radiation equipment Clearance must be scheduled several days in advance of move date. Once the equipment is verified to be cleaned and EH&S has issued the Clearance Form, the equipment can then be moved.

### Special Considerations

#### **Relocating Biological Safety Cabinets (BSC)**



- **Moving within a building or conjoined buildings** – All surfaces must be wiped down with a freshly made 10% bleach solution. Please work with your [Research Safety Specialist](#) to coordinate a day and time to complete the Clearance paperwork prior to the move. Please note, once cleared by EH&S, the BSC can be moved by a general moving company or Facilities Management. Upon installation in the new space the BSC will need to be recertified by a [University approved vendor](#).
- **Moving from building to building using public streets** - Special decontamination by a [University approved vendor](#) is required before EH&S can issue a Clearance.

Please note, once Cleared by EH&S, the biological safety cabinet can be moved by a general moving company or Facilities Management. Upon installation in the new space the BSC will need to be recertified by a [University approved vendor](#).

- **Moving from campus to campus** - Special decontamination by a [University approved vendor](#) is required before EH&S can issue a Clearance. Please note, once Cleared by EH&S, the biological safety cabinet can be moved by a general moving company or Facilities Management. Upon installation in the new space the BSC will need to be recertified by a [University approved vendor](#).
- **Leaving the University**
  - **Moving to another institution** - Special decontamination by a [University approved vendor](#) is required before EH&S can issue a Clearance. Please note, once Cleared by EH&S, the biological safety cabinet can be moved by a general moving company or Facilities Management. Upon installation in the new space the BSC will need to be recertified by a [University approved vendor](#).
  - **Closing of Laboratory** – Biological safety cabinets can be transferred to another laboratory if operational. If the cabinet is being discarded it will need to be decontaminated by a [University approved vendor](#) prior to disposal by Columbia University Facilities.

**Radiation Equipment Clearance** – The radiation equipment Clearance process may vary based on equipment type, shielding material, and isotope. Your [Research Safety Specialist](#) can provide specific decontamination instructions. All Clearances must be scheduled one week in advance of the move date.



Due to NYS DEC and NYC DOH requirements to maintain an inventory of all x-ray devices and radioactive materials at a facility, the lab must inform the RSO when you plan to relocate or discard items that contain an x-ray tube, radioactive materials or sources.

## Special Considerations

### **Relocating Gamma Counters (GC)**



**Moving within a building or conjoined buildings** – A Gamma Counter can be moved by laboratory staff that have completed Laboratory Safety & Radiation Safety Training without a Clearance from EH&S or the RSO. If being moved by untrained staff or movers, a clearance from the RSO is required. Please speak with your Research Safety Specialist regarding the Clearance process.

EH&S recommends reviewing the manufacture's guide for additional information regarding the move of this sensitive piece of equipment.

- **Moving from Building to Building using public streets** – Once a Radiation Safety Clearance is issued the standards are removed, the equipment can be moved by a general moving company or Facilities Management. The standards can be transported by hand once properly packaged.
- **Moving from Campus to Campus** - Once a Radiation Safety Clearance is issued by the RSO and the standards are removed, the equipment can be moved by a general moving company or facilities. The standards can be transported by an approved vendor or shipped via FedEx. Please contact your [Research Safety Specialist](#) for information on the most appropriate method.

EH&S recommends reviewing the manufacturer's guide for additional information regarding the move of this sensitive piece of equipment.

- **Leaving the University**
  - **Moving to another institution** - Once a Radiation Safety Clearance is signed off on by the RSO and the standards are removed, the equipment can be moved by a general moving company or facilities. The standards can be transported by an approved vendor or shipped via FedEx. Please work with your [Research Safety Specialist](#) for information on the most appropriate method.

EH&S recommends reviewing the manufacture's guide for additional information regarding the move of this sensitive piece of equipment.

- **Closing of Laboratory** – The laboratory may wish to gift the counter to another permitted Columbia University Principal Investigator. In the event it is to go out for disposal the laboratory must ensure the equipment is decontaminated and a Radiative materials clearance will need to be issued by the RSO. The check sources, which are radioactive, will need to be discarded as radioactive waste while the gamma counter itself can be discarded as electronic waste through Facilities Management.

### Relocating Liquid Scintillation Counters (LSC)



- **Moving within a building or conjoined buildings** - Once a Radiation Safety Clearance issued by the RSO, the equipment can **only** be relocated by an approved licensed transporter. EH&S recommends reviewing the manufacture's guide or service provider for additional information regarding the move of this sensitive piece of equipment. Please note onsite technical support may be needed from the vendor, which may impact the move timeline.

- **Moving from Building to Building using public streets** - Once a Radiation Safety Clearance is signed off on by the RSO, the equipment can then be relocated by an approved licensed transporter, **only**.

EH&S recommends reviewing the manufacturer's guide or service provider for additional information regarding the move of this sensitive piece of equipment. Please note onsite technical support may be needed from the vendor, which may impact the move timeline.

- **Moving from Campus to Campus** - Once a Radiation Safety Clearance is issued by the RSO, the equipment can be relocated by an approved licensed transporter, **only**. EH&S recommends reviewing the manufacturer's guide or service provider for additional information regarding the move of this sensitive piece of equipment. Please note onsite technical support may be needed from the vendor, which may impact the move timeline.
- **Leaving the University**
  - **Moving to another institution** - Once a Radiation Safety Clearance is signed off on by the RSO, the equipment can be relocated by an approved licensed transporter, **only**. EH&S recommends reviewing the manufacturer's guide or service provider for additional information regarding the move of this sensitive piece of equipment. Please note onsite technical support may be needed from the vendor, which may impact the move timeline.
  - **Closing of Laboratory** - The laboratory may wish to transfer the counter to another permitted Columbia University Principal Investigator. If being discarded, the laboratory must ensure the equipment is decontaminated and a Radiative Materials clearance must be issued by the RSO. The standards, which are radioactive, along with the internal radioactive source will need to be removed and discarded as radioactive waste. Please contact your [Research Safety Specialist](#) to set a day and time to have the internal source removed. Once the Radiative Materials Clearance has been issued by the RSO, what remains can be discarded as electronic waste through Facilities Management.

### Relocating Lasers



Please refer to the manufacturer's guide for detailed instructions. One should also take into consideration that onsite technical support may be needed from the vendor, which may impact the move timeline. For lasers using hazardous gases, organic solvents or dyes, as per the manufacturer's specifications, please ensure these materials are drained/removed and collected prior to the move date. The dye should be collected and disposed of as hazardous waste through EH&S.

If the laboratory is interested in disposing of a laser, including an open-beam system or a closed-beam which may be a component of another piece of laboratory equipment, in many cases the laser can be returned to the manufacturer. If this is not an option, your [Research Safety Specialist](#) can provide information on University approved vendors that may be able to assist in the disposal process. For more information on the Columbia University Laser Safety Program please visit <http://www.ehs.columbia.edu/LaserSafety.html>.

# LABORATORY VACATING PROCEDURES



Whether planning a renovation, relocation or departure from a Columbia University laboratory, it is important to leave the space in a safe condition suitable for re-occupancy or renovation. Laboratory staff serve a primary role in this process. EH&S will work closely with your laboratory's designee(s), as well as with Facilities Management & Space Planning, to help prepare for the safe and efficient turnover of space, **including shared spaces, such as common equipment, tissue culture, and temperature controlled rooms.**

Early communication and coordination will afford all parties adequate time to address the items required to properly vacate the space. Once the laboratory has completed the action items below, EH&S can issue "Clearance" to your Department and/or Facilities Management, to proceed with renovation or re-occupancy. To avoid delays for both departing and arriving occupants, please follow [Laboratory Vacating Procedures](#) carefully.

All contamination prone equipment and surfaces require decontamination (wipe down and clean exterior surfaces of equipment with 70% ethanol or a freshly prepared 10% bleach solution). All hazardous materials must be removed before a Clearance can be issued. Please note - a laboratory Clearance requires a signature and site visit by EH&S, Facilities Management, and laboratory representative.

## Special Considerations



**Radiation Exit Survey** – For more information on EXIT Surveys & the decommissioning of a Radioactive Materials Laboratory please review the [Policy on Shutting Down a Radioactive Materials Laboratory](#). After arrangements have been made to dispose of or relocate your radioactive materials, lab staff and EH&S must verify that all remaining equipment and work surfaces are not contaminated with residual radioactive materials. The laboratory must conduct a thorough contamination survey using appropriate instrumentation and, if discovered, clean any removable contamination from equipment and work surfaces. Appropriate contamination survey instrumentation and decontamination methods may vary by radioisotope; more information is available from the EH&S [website](#). A Radiation Safety Office representative will complete a thorough contamination survey to verify the laboratory is clear of radioactive materials. Once completed and confirmed, all radioactive material caution postings will be removed and a Clearance will be issued.

Please note the final Laboratory Clearance will **not** be issued by EH&S until the Radiation Exit Survey is complete and signed off on by the RSO.





# COLUMBIA UNIVERSITY

Environmental Health & Safety

## PROCEDURES FOR VACATING A LABORATORY



<b>Principal Investigator:</b>	<b>Building &amp; Room(s):</b>	
<b>Department:</b>	<b>Telephone Contact#:</b>	
<b>Project Manager:</b>	<b>Moving to:</b>	<b>Vacate Date:</b>

Whether planning a renovation, relocation or vacating a Columbia University (CU) laboratory significant coordination & advanced planning is required. Laboratory personnel serve a primary role in helping to ensure laboratory facilities are left in a safe condition suitable for re-occupancy or renovation. EH&S will work closely with your laboratory's designee(s), as well as with Facilities Management & Space Planning, to help prepare for the safe & efficient turnover of space, including shared spaces, such as common equipment and tissue culture rooms. It is essential that coordination of this process begin as soon as it is known you will vacate your space. Please contact the EH&S Research Safety Specialist (RSS) assigned to your laboratory once this information is known. Early communication & coordination will afford all parties adequate time to address the items required to properly vacate. Once the lab has completed the action items below, EH&S can issue "Clearance" to your Department &/or Facilities Management, to proceed with renovation or re- occupancy. **To avoid delays for both departing & arriving occupants, please follow this guidance carefully. Under no circumstances shall a laboratory be vacated or a "Clearance" be issued by EH&S without verifying the following procedures have been completed.**

Research Safety Specialist information: <http://www.ehs.columbia.edu/LabAssignment.html> or [labsafety@columbia.edu](mailto:labsafety@columbia.edu) CUMC: 212-305-6780 Morningside, Lamont, Nevis: 212-854-8749

<b>Radioactive Materials (RAM)</b>	<b>DONE</b>
<b>RAM must not be transported via trains, buses, cars or CU shuttles.</b>	Y/N/NA
Label all containers to clearly identify isotope, activity & type of waste.	
Evaluate & sort radioactive materials to either 1) be moved or 2) disposed as waste.	
Survey & wipe-test lead bricks, lead pigs, shielding, & source containers to verify decontamination (you must check all drawers, cabinets, etc.). Assemble the materials for EH&S to survey. <ul style="list-style-type: none"> <li>• If discarding, submit the <a href="#">RAM pickup form</a>.</li> <li>• If moving to another lab, obtain 'Clearance' from EH&amp;S.</li> </ul>	
To move RAM, you must contact the RSO office. For radioactive shipments off campus, after receiving RSO approval, complete & submit the <a href="http://ehs.columbia.edu/IntentToShipHazardousMaterialsForm.pdf">Intent to Ship</a> form: <a href="http://ehs.columbia.edu/IntentToShipHazardousMaterialsForm.pdf">http://ehs.columbia.edu/IntentToShipHazardousMaterialsForm.pdf</a>	
Update radioactive material inventory records for disposal & new locations.	
Return all badges, if leaving CU, by notifying the Dosimetry Coordinator at <a href="mailto:badges@columbia.edu">badges@columbia.edu</a>	
<b>Last step:</b> Exit survey of rooms & equipment will be conducted by an RSO Representative.	
<b>Controlled Substances</b>	
All DEA/NYSDOH Controlled Substances must be properly managed by the NYSDOH licensed & DEA registered owner / Permit Holder of the substances & can either be ( <i>choose one</i> ): <ul style="list-style-type: none"> <li><input type="checkbox"/> Returned via a DEA approved reverse distributor. Refer to the University's <a href="#">Policy for the Acquisition, Use &amp; Disposal of Controlled Substances</a> (<a href="http://ehs.columbia.edu/ControlledSubstances.html">http://ehs.columbia.edu/ControlledSubstances.html</a>) &amp; review the procedures with your <a href="#">Research Safety Specialist</a>.</li> <li><input type="checkbox"/> Relocated to the Registrant's new location. An amendment identifying the new location must be sent to both DOH &amp; DEA prior to relocation. Refer to CU's <a href="#">Policy for the Acquisition, Use &amp; Disposal of Controlled Substances</a> &amp; review procedures with your <a href="#">Research Safety Specialist</a>.</li> </ul>	

<b>C h e m i c a l s</b>		<b>DONE</b> Y/N/NA
Includes chemical waste, reagents, prepared solutions, used or new oil, & household cleaning products or anything that cannot be poured down the drain. Please refer to the Policy on Drain Disposal of Chemicals <a href="http://www.ehs.columbia.edu/draindisposal.html">http://www.ehs.columbia.edu/draindisposal.html</a>		
Label all containers to clearly identify contents. Disposal of unknown materials or chemicals is extremely difficult & costly. If not identifiable, contact your RSS to assist.		
Evaluate & sort chemicals into categories: 1) to move, 2) to redistribute to others, & 3) waste for disposal.		
<b>General/Furniture movers are not permitted to move chemicals!</b> Contact your <a href="#">Research Safety Specialist</a> . for guidance on proper packaging & transporting/shipping of chemicals. Federal, state & local laws require specific procedures when moving chemicals.		
Complete the <a href="#">Chemical Waste Pickup</a> * for disposal of hazardous waste & unwanted chemicals. For large quantities, note 'Lab Cleanout' in the comment box.		
<b>Last step:</b> Inspect all lab spaces & ensure all chemicals are gathered for easy removal by EH&S. You must check all drawers, cabinets, refrigerators, etc.		
<b>B i o l o g i c a l M a t e r i a l s i n c l u d i n g : M i c r o o r g a n i s m s , C u l t u r e s , &amp; r D N A</b>		
Clinical or research materials, including but not limited to cultures & stocks of microorganisms & human or animal animal specimens that may contain pathogenic or nonpathogenic microorganisms.		
Inventory & label all containers to clearly identify contents.		
Evaluate & sort biologicals into categories: 1) move, 2) research materials to preserve & 3) waste. For more on choosing the appropriate waste stream review the EH&S RMW policy at <a href="http://ehs.columbia.edu/RMWpolicy.pdf">http://ehs.columbia.edu/RMWpolicy.pdf</a> .		
If moving materials in liquid nitrogen Dewar flasks, contact RSS for information on using dry nitrogen shipper(s).		
Dispose of all (non-sharp) potentially bio-hazardous waste from the laboratory in red bags: Including bench pads & disposable liners/covers from work surfaces & solid media & supplies <input type="checkbox"/> Decontaminate all liquid cultures by autoclaving or by treating for 30 minutes with a 10 % bleach solution before drain disposal.		
<b>S h a r p s</b>		
Needles, syringes w/ or w/o needles, razor blades, all pipettes, pipette tips, & anything that can puncture a plastic bag. In addition, small volumes of liquid (50 ml or less) in plastic tubes tightly capped can be disposed into a red bag.		
Fill out the appropriate online pick-up request form for radioactive & chemically contaminated sharps. For non-segregated sharps containing: <input type="checkbox"/> Affix a radioactive waste label to the sharps container and check the Radioactive Sharps box on the label. Submit the <a href="#">RAM pickup form</a> * for disposal. <input type="checkbox"/> Chemically & biologically contaminated sharps may be placed directly in sharps containers providing there are no free liquids. Place closed containers outside the door of the laboratory for pickup.		
<b>L a b o r a t o r y E q u i p m e n t</b>		
Decontaminate lab equipment that is to be left in place, moved, sold as surplus, or disposed of via		
For refrigerators, freezers, centrifuges & other movable equipment that may be contaminated with: <b>Chemicals:</b> remove all chemicals & glass, clean with soapy water solution or suitable alternative. <b>Biological materials:</b> clean, disinfect with freshly prepared 10% bleach or 70% ethanol solution, remove warning stickers. <b>RAM:</b> clean, decontaminate using "rad con" or a suitable alternative, survey, wipe-test & contact RSS for 'Clearance'.		
For incubators, disconnect CO <sub>2</sub> line, drain water jacket, disinfect, remove warning stickers, & contact RSS for Clearance' statement.		
For biological safety cabinets (BSC), contact maintenance service vendor to conduct gas-decontamination before exiting the building or discarding. Recertification by service vendor is required after a BSC has been relocated.		
Submit Facilities online-service request for removal of lab equipment to be discarded, after RSS has provided 'Clearance' statement.		
<b>G e n e r a l H o u s e k e e p i n g</b>		
Lab spaces, including shared & support areas must be left in a 'broom swept' condition prior to vacating.		
Remove all debris from fume hoods, BSC, & bench tops.		
Clean & disinfect (using freshly prepared 10% bleach or 70% ethanol solution) bench tops, furniture, other surfaces, laboratory hoods, storage cabinets, & other fixed equipment. Contact RSS for 'Clearance' for equipment, spaces, etc.		

<b>General Housekeeping</b> continued Lab spaces, including shared & support areas must be left in a 'broom swept' condition prior to vacating.	<b>DONE</b> Y/N/NA
Contact Facilities to order trash/recyclable/red bag bins & to remove recyclable glass, plastic, universal waste (e.g., computers, lamps etc.). All computer hard drives must be wiped by CUIT.	
Clean glassware if necessary. Redistribute usable glassware to stockrooms & other laboratories.	
For other empty glassware, use practices employed to empty the container (e.g., collect as chemical waste and then rinse clean). Deface the label & place in a cardboard box labeled "Caution Glass" for Facilities to remove.	
<b>Oxygen Sensor</b>	
Contact <a href="mailto:fire-life@columbia.edu">Fire Safety fire-life@columbia.edu</a> , for the removal or relocation of oxygen sensors.	
<b>Gas Cylinders: Return/Disposal</b>	
Compressed gas cylinders <b>can only</b> be moved using a cylinder transportation cart, EH&S strongly advises contacting service vendor.	
Remove regulators, hosing & manifolds. Appropriately cap all cylinders & lecture bottles.	
Return cylinders to stockroom or supplier.	
Complete the <a href="#">Chemical Waste Pickup Form</a> ** for disposal of non-returnable lecture bottles.	

Laboratory Representative (Print Name):

Date:

Laboratory Representative (Signature):

Research Safety Specialist:

Date:

Project Notes