**Office of Environmental Health &Safety (OEH&S)**

# Hazardous Materials

# Move Guide

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**Prepared by:**

**UCSF Office of Environmental Health & Safety (OEH&S)**

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# Introduction

This guide provides specific instructions to laboratory personnel to help prepare for major relocations such as a new building occupancy. The Office of Environmental Health and Safety (OEH&S) is responsible for ensuring that hazardous materials (chemicals, biological, controlled substances, and radioactive materials (RAM)) and specialty equipment (e.g. biological safety cabinets or liquid scintillation counters) are packaged and transported in compliance with all pertinent environmental health and safety and transportation regulations.

A Facilities Management Relocation Manager (FMRM) will have specific responsibility for coordination and oversight of movement of laboratory equipment, supplies, and materials, including hazardous materials. Regulations concerning packaging and transport of hazardous materials over public roadways are detailed and complex.

FMRM recommends to OEH&S suitable contractors who will perform required tasks in accordance with Federal, State and Local regulations as well as UCSF policies and procedures. OEH&S will verify that these companies have current licenses, permits, registrations, etc., as specified by law, as well as appropriate insurance, contingency plans, and personnel training and certifications. OEH&S will also review contractor's compliance history and previous performance.

The laboratory must designate a Move Supervisor (MS). The MS would serve as a point of contact for FMRM and OEH&S Departmental Safety Advisor (DSA). MS will coordinate all aspects of moving hazardous materials for his or her laboratory. Coordination includes tasks before, during, and after the move as specified below. MS must be a lab member who is knowledgeable on handling all hazardous materials in laboratory and must be listed on all applicable Use Authorizations (RAM, Biological & Controlled Substances).

For any move, a Chemical Contractor (CC) will package, load, and transport chemicals. The CC will also provide OEH&S a chemical inventory for new location(s). Radioactive Materials Contractor (RMC) will package RAM and RAM-associated equipment. Biological Materials Contractor (BMC) will perform disinfection of biological safety cabinets. Biological Materials Transport Contractor (BMTC) will pack and transport biological material and associated equipment (freezers, refrigerators, etc.). Alternatively, lab personnel may move some types of biological materials as will be described later. In addition, contractors will provide decontamination services of identified pieces of laboratory equipment (e.g., liquid scintillation counters (LSCs), biosafety cabinets (BSCs), centrifuges, waste containers, etc.) and laboratory spaces as requested by research laboratories.

Contractors will ensure that vacated laboratory spaces have been decontaminated and can be returned to unrestricted use. OEH&S will also verify.

OEH&S and/or assigned DSA will be available to answer technical questions regarding UCSF policies and procedures as well as regulatory issues in all cases.

**NOTE: No amount of hazardous waste will be moved. All hazardous waste must be disposed before any move occurs. PLAN AHEAD.**

# Section I Radioactive Materials and Associated Equipment

Laboratory personnel are ***not*** authorized to transport RAM and sealed sources. MS coordinates with RMC to arrange for transport of RAM. RAM may be in stock vials or similar containers, or in "working containers". The RMC will assess integrity of all containers that are not original manufacturers' packaging to minimize exposure and to reduce potential for leakage. Minimize receipt of isotope before move. Transfer unneeded isotopes to other PIs (following proper OEH&S transfer procedures).

RMC should perform walkthrough and review equipment, isotopes, and sealed sources.

Ensure that security for RAM is at least at the same level as security at laboratory's original campus location, i.e., materials must be stored in marked storage areas within laboratories with locking capacity. Isotopes should either be locked or under control of a qualified user.

Perform physical inventory of all RAM and decide from the following 3 options:

**1. Moving RAM:**

Label RAM with isotope type and total activity. Notify RMC to package materials for moving.

**2. Disposing of RAM:**

Prepare RAM for disposal per guidelines in RSM. Prepare radioactive waste disposal form. Call OEH&S at 476-1771 (Parnassus); 502-1129 (Mt Zion); 514-4407 (SFGH or other satellite locations) for pick up.

**3. Transferring RAM:**

Complete "Radioactive Transfer" form to transfer RAM to another laboratory. Receiving laboratory must have a current Radioisotope Usage Authorization (RUA). Retain copy of transfer form for your records, and mail copy to OEH&S (Box 0942).

**EQUIPMENT Used with RAM:**

Equipment used with RAM must be labeled appropriately prior to move. After decontamination as described below, RMC packages equipment, and completes and affixes appropriate label certifying that equipment can be transported by movers. Refer to Section V for label descriptions.

Identify equipment which MAY be contaminated with RAM and proceed as follows:

Perform survey (wipe test) on equipment. If < 3 times above background, RMC affixes Label B. If > 3 times above background, perform decontamination and re-wipe until < 3 times above background. RMC affixes Label B; item can then be moved by the RMC or common or private carrier/mover.

If equipment CANNOT be decontaminated to < 3 times above background, the RMC must package and label unit according to Department of Transportation regulations. RMC affixes Label C; item can then be moved by the RMC or common or private carrier/mover.

**NOTES:**

a) Some instruments (e.g. Liquid Scintillation Counters) may require packaging, moving, and reinstallation by manufacturers' representatives. MS is encouraged to contact manufacturers in advance and coordinate with neighboring laboratories with similar needs to minimize cost.

b) Geiger counters and other survey meters do not require special handling unless contaminated.

## Section II Hazardous Chemicals and Associated Equipment

Obtain floor plans for new location from FMRM. Each MS must assess his/her laboratory's storage capacity for chemicals and determine where hazardous chemicals will be stored at new location. Pay particular attention to flammable and corrosive liquids, highly toxic chemicals, and potentially explosive compounds. Upon arrival at new location, store these chemicals in compliant hazardous materials (flammable and corrosive) cabinets.

Laboratory personnel are ***not*** authorized to transport any chemicals; CC is assigned this responsibility.

Identify and segregate chemicals for disposal, moving or transfer. Use appropriate judgment to purchase only quantities of chemicals that will be completely used prior to move.

Perform physical inventory of research chemicals and decide from the following 3 options:

**1. Moving chemicals:**

Verify labeling and segregate chemicals based on compatibility. Notify CC to package chemicals for moving after labeling and segregation is completed.

**2. Disposal of chemicals:**

Segregate chemicals based on compatibility. Schedule for pick-up and disposal by CC.

**3. Transfer chemicals:**

Unwanted chemicals may be transferred to other active laboratories. Contact other laboratory personnel to arrange transfers if desired.

NOTE: do not abandon chemicals.

**Equipment used with chemicals:**

Equipment used with chemicals must be decontaminated prior to relocation. Prepare equipment potentially contaminated with chemicals for moving by the following procedure:

1. Drain solution out of equipment as much as possible (vacuum pumps are exempt).
2. Plug outlets to prevent residual leakage.
3. Clean the surface of the equipment with soap and water.

Equipment must be labeled. After decontamination as described above, MS or CC packages equipment, and completes and affixes Label B certifying that equipment can be transported by movers. Refer to Section V for label descriptions.

**NOTES:**

a) Do not move mercury thermometers or manometers.

b) Only compliant, UL-listed corrosive and/or flammable storage cabinets may be moved by CC. Compliant corrosive storage cabinets must be metal, self-closing and self-latching with 2" lip at bottom of cabinet. Compliant flammable storage cabinets must be metal and have 2" lip at bottom of cabinet, and are self-closing with a latch. Cabinets must be emptied prior to move, and decontaminated as described under the "Equipment used with chemicals" section (above).

c) OEH&S will not approve moving of non-compliant chemical storage cabinets.

## Section III Biological Materials and Associated Equipment

These instructions apply to laboratories moving biological and biohazardous materials between origin and destination laboratories within UC San Francisco campus sites located within San Francisco city borders only. This process may not be used to transfer biological or biohazardous materials between different UC campuses or to other off-site destinations (including UCSF affiliates located outside of San Francisco) without approval of the Biosafety Officer. Those with Biosafety Level 3 (BSL3) laboratories must call the UCSF Biosafety Officer (BSO) for specialized procedures.

Biohazardous materials include agents listed as Risk Group 2 (RG2). Risk Group 1 (RG1) agents are defined as non-hazardous biological material.

Lab should dispose of all biohazardous waste prior to move. Biohazardous waste will not be transported.

**Active Cultures**

Laboratories must move their own active cultures (either RG1 or RG2) but volume of liquid cultures must be reduced to absolute minimum.

MS should ensure that lab has sufficient and proper transport containers for biohazardous materials. Refer to Biosafety Manual Chapter 14 "Transportation of Biohazardous Goods within UCSF" for details. MS is responsible for obtaining packaging necessary to keep cultures at correct temperature. MS will confirm that active stocks are reduced to smallest possible amount.

**Frozen and Active Biological and/or Biohazardous Materials**
Transport of frozen and/or active biomaterials depends on Risk Group of material involved. Options are as follows:

1. **Laboratory personnel to coordinate with BMTC to move RG1 biomaterials within freezers or refrigerators.**

   RG1 biomaterials (either active or frozen cultures) may be transported within freezer or refrigerator as long as equipment is packed with enough absorbent and impact protecting material to prevent breakage and absorb spillage. Anything with potential for leakage must be enclosed in leak proof container(s) with tightly fitted lid(s) (secondary containment). Equipment should be sealed shut with tape and should have on outside, a large clearly written label indicating that equipment contains live cultures of non-biohazardous materials and must be relocated immediately. Laboratory staff is responsible for coordinating with BMTC to ensure that equipment is moved immediately.

   MS will need to contact FMRM to arrange for survey of freezers and contents.

2. **BMTC to move frozen RG2 biohazardous material within the freezer ("-80" or freezer section of refrigerator) or in liquid nitrogen ($LN_2$ using Dewar flask as shipping container)**.

   Frozen RG2 biomaterials may be transported within freezer as long as equipment is packed with enough absorbent and impact protecting material to prevent breakage and absorb spillage. Anything with potential for leakage must be enclosed in leak proof container(s) with tightly fitted lid(s) (secondary containment). Equipment should be sealed shut with tape and should have on outside, a large clearly written label indicating that equipment contains frozen cultures of biohazardous materials and must be relocated immediately. Laboratory staff is responsible for coordinating with BMTC to ensure that equipment is moved immediately.

   Frozen RG2 biomaterials may be transported in $LN_2$ Dewar flask containers.

Containers must be securely latched and labeled with biohazardous stickers. Laboratory staff is responsible for coordinating with BMTC to ensure that $LN_2$ Dewar flask(s) are moved immediately.

MS will need to contact FMRM to arrange for survey of freezers and contents. MS will coordinate with FMRM to ensure all additional preparations prior to transport are followed as detailed above **and** in transport permit.

**3. Laboratory personnel to move RG2 biohazardous materials by coolers.**

**RG2 biohazardous materials (either active or frozen cultures)** must be moved in thermally stable transport containers such as Igloo® or Coleman®-style hard-sided picnic coolers with securing latches. Primary containers must be placed within secondary containers that are leak proof and have tightly fitting lids (UCSF Biosafety Manual, Chap. 14). Materials requiring transport at non-ambient temperature must be packed in coolers that include enough heat or cold source packs to keep materials at required temperature for duration of transfer. Wadded newspaper or bags of Styrofoam peanuts are commonly used to take up unused space to prevent contents shifting and to maintain temperature as long as possible. (**Do not use loose Styrofoam peanuts**). Outer containers must be sealed and secured shut with heavy-duty duct or shipping tape.

**NOTES:**

a) All cultures must be transferred to leak proof, screw-cap unbreakable plastic containers (primary container). **Do not use slip-cap culture tubes or stoppered containers.**

b) Cryogenic freezers (-80 °C) that contain frozen biological material(s) must have corresponding freezer(s) already in place and functioning at new location that have sufficient space to accept contents of freezer(s) being transported. It is possible that freezer being relocated may not function properly immediately after being moved.

c) All containers with biohazardous materials must display biohazard symbol and have attached to the top outside a leak proof plastic bag that contains the following information:

1. Name and phone number of the PI and that of an alternate contact,
2. Originating building and room number,
3. Destination room number,
4. Inventory and description of biohazards of contents.

**ADDITIONAL GENERAL NOTES:**

**a)** Biohazardous materials must be transported by two knowledgeable persons (either laboratory personnel or contractors). Appropriate PPE must be worn (gloves, laboratory coat, safety glasses or goggles, masks or face shields) when actively handling biohazardous materials during packaging and unpacking at new location. During transport, street clothes should be worn, but PPE should remain available in case of spills. Persons involved in transport must take with them 2 1L spray bottles of fresh 0.5% bleach solution, sufficient absorbent material to disinfect and remove spills, and sufficient large plastic bags (not red biohazard bags) to contain used absorbent materials.

b) BMTC may be contracted to move frozen but not active cultures.

c) After packaging, actual transport of biohazardous materials must be completed within 2 – 3 hours from beginning location to final destination. Stocks should be immediately transferred to freezer at new location and remain there until original freezer is in place

and has returned to stable temperature.

d) DO NOT transfer biohazardous materials in incubators.

**Equipment Use with Biomaterials**

Examples of equipment which will require disinfection include biosafety cabinets, incubators, freezers, refrigerators, etc. All such equipment must be decontaminated and labeled prior to moving.

Decontaminate equipment by thoroughly wiping down outer surfaces with fresh solution of 0.5% bleach and let bleach sit for 15 to 30 minutes before wiping again with clear water. For stainless steel, use 70% isopropanol or ethanol instead of bleach.

BMC must perform disinfection of biosafety cabinets (BSC). Contact FMRM to remove bracing and disconnect plumbing. Do not use BSC again until relocation is complete and recertification is performed at new location. Recertification is also performed by BMC. BMC is also available to decontaminate other equipment, if requested.

After decontamination as described above, BMTC packages equipment, and completes and affixes Label B certifying that equipment can be transported by movers. Refer to Section V for label descriptions.

## Section IV Controlled Substances

Drug Enforcement Agency (DEA) regulations and UCSF policies must be followed explicitly when moving Controlled Substances (DEA Schedule and/or CA List).

NO EXCEPTIONS: Laboratory must FIRST contact Controlled Substances Officer (CSO) who will determine what procedures are required based upon DEA registration(s) involved.

Once appropriate procedures are established by CSO, controlled substances may only be moved by authorized laboratory personnel. Person(s) MUST be listed as authorized user(s) on laboratory's active and current Controlled Substances Authorization (CSA).

The MS will verify that security for controlled substances storage is in place at the new location prior to moving controlled substances. Substances should be placed in established secured area(s) immediately upon arrival at new location(s).

Laboratory must submit the following forms to CSO:

1. Controlled Substance Security Form
2. Modification Request Form

Form (1) should reflect the security measures for new location. Form (2) should indicate all use location changes that will be made to the laboratory's active CSA.

# Section V Equipment Labeling

**EVERY PIECE OF LABORATORY EQUIPMENT REQUIRES A LABEL PRIOR TO MOVE!**

1. Label A

   - Label A is affixed to equipment known to be free of contamination.

2. Label B

   - Label B is affixed to equipment used with biohazardous, RAM, or chemicals but has been decontaminated as described in Sections I, II, and/or III. Contractor (RMC, BTMC) packages equipment, completes and affixes Label B certifying that equipment can be transported by movers.

3. Label C

   - Label C is affixed to equipment used with RAM that cannot be decontaminated as described in Section I.
   - RMC packages equipment and completes and affixes Label C certifying that equipment can be transported by movers.

**SAMPLE OF TAGS**

**Label A**

OK to Move

This equipment is NOT contaminated.

Certified by: _____

PI: _____

Date: _____

**Label B**

OK to Move

This equipment has been evaluated and decontaminated for:

___ biohazardous materials

___ hazardous chemicals

___ radioactive materials

Certified by: _____

PI: _____

Date: _____

**Label C**

OK to Move

This package conforms to the conditions and limitations specified in 49 CFR 173.421 for radioactive material. Excepted package-limited quantity of material, N.O.S. UN2910

Certified by _____ (Contractor):

_____

PI: _____

Date: _____

After laboratory has been vacated but before it is occupied by another investigator or turned over for renovation or other use, it must be cleared of hazardous materials. Specific close-out protocols are required when chemical, biological, and radioactive materials have been used in a laboratory space. Some are required by regulations and others by OEH&S policy. MS should work with OEH&S and FMRM to accomplish this task.

This procedure is written as though the procedures for chemical, radioisotope, and biological materials are separate processes but in practice, most laboratories use more than one and many use all three. The DSA assigned can help to organize and streamline the process.

As previously described, certain moving procedures must be performed by authorized contractors. The same contractors may also, by prior arrangement, assist laboratory personnel in completing clearance procedures.

## CHEMICALS

### Removal/Disposal of Chemicals

Instructions concerning moving chemicals are covered in detail in Section II. If there are chemicals remaining after move, MS must make arrangements with FMRM for disposal which will incur additional charges. **DO NOT leave chemicals in vacated laboratories.**

### Clearance of Fume Hood

Fume hoods must be decontaminated to assure they are free from chemical contamination that could harm UCSF research personnel or contractors. Laboratory staff or CC is responsible for thoroughly cleaning all accessible hood surfaces with soap and water. Laboratory will inform OEH&S in writing that fume hood has been decontaminated. OEH&S will then post hood, verifying that it has been decontaminated.

**NOTE**: Inform FMRM if perchloric acid, radioisotopes, and/or toxins have been used in fume hood. Special procedures must be followed for these cases. Contact OEH&S.

### Cleaning/Decontamination of Laboratory

Laboratory personnel must thoroughly clean all areas to ensure removal of chemical residues. Surfaces where hazardous chemicals have been used or stored should be washed with detergent and water.

## RADIOISOTOPES

### Removal/Disposal of radioisotopes

For RAM removal/disposal, refer to Section I.

### Cleaning/Decontamination of Laboratory

For procedures involving equipment used with RAM, refer to Section I.

Survey laboratory areas (sinks, benches, floors, etc.) using calibrated survey meter. Perform wipe tests on areas/locations likely to be contaminated and decontaminate as needed. Include all remaining laboratory equipment . File copies of wipe test results including decontamination results in RUA logbook.

If remaining piece of equipment cannot be decontaminated, transfer it to another Principal Investigator (PI) following standard UCSF procedures for transfer of equipment or dispose as radioactive waste through OEH&S.

## BIOLOGICAL MATERIALS

### Removal/Disposal of biological materials

Consult BSO if lab used toxins or prions for decontamination procedures.

All biomaterials must be removed from lab. Procedures for moving biomaterials and associated equipment are detailed in Section III. If materials will not be moved, dispose as waste or transfer to another PI following UCSF procedures. For biohazardous waste disposal, package and label prior to disposal through OEH&S.

### Clearance of Biosafety Cabinets

Refer to Section III for clearance of Biosafety Cabinets.

### Cleaning/Decontamination of laboratory

In addition to standard cleaning of laboratory surfaces with detergent and water, decontaminate surfaces by wiping down with either 0.5% Sodium hypochlorite (household bleach) solution or with Wescodyne. Decontaminate furniture or equipment that will be removed from laboratory (e.g., to surplus).

For freezers and refrigerators that will not be moved, unplug and defrost any units which have been used for storage of biological materials, collect frost melt fluid and decontaminate by bringing to a final concentration of 0.5% Sodium hypochlorite (bleach). Allow fluid to stand for 15 minutes after mixing and pour down sink. Wipe inner and outer surfaces of freezers and refrigerators with 0.5% Sodium hypochlorite.

## REMOVAL OF SIGNS AND LABELS

After removing all hazardous materials (RAM, biological materials, chemicals, controlled substances), lab must remove or deface all hazardous posters, warning, tags, labels, etc.

## LABORATORY USAGE AUTHORIZATIONS

Laboratory must submit a Modification Request form to DSA. Form should include cleared areas to be deleted and new areas to be added for each relevant usage authorization (Biological, Radioisotope, and/or Controlled Substances). DSA will assist laboratory with modifications to laboratory usage authorizations.

## INSPECTION AND CERTIFICATION

DSA will conduct final inspection including site visit and verification of records and issue a memo certifying that lab is clear of hazardous materials.

# Section VII Spill Response

**NOTE:** Contracted hazardous materials movers are required by law to have spill response procedures.

**Major Spill**
(Requires assistance of emergency personnel, e.g., UCSF Police Department, SF Fire Department, OEH&S)

**R - Rescue** - rescue or assist injured or contaminated persons

**A - Alert** - announce to others in immediate area and call ***9-911 from UC extensions or 476-1414 from outside phone*** and report:

- Exact location
- Identity and quantity of spilled material
- Other pertinent information
- Your name and phone number

**C - Contain** - by closing doors and restrict access to affected area

**E - Evacuate** – vacate area and wait for emergency personnel

**Minor Spill**
(Affects only small area; lab staff can clean up without assistance by emergency personnel)

- ☐ Alert others in immediate area.
- ☐ Supervisor will direct cleanup.
- ☐ Obtain MSDS or other information from Safety Manual or OEH&S.
- ☐ Wear protective equipment (safety goggles, gloves, long-sleeve lab coat).
- ☐ Avoid breathing vapors from spill.
- ☐ Confine spill to small area.
- ☐ Absorb spill using absorbent pad or paper.
- ☐ Collect residue, place in container, label and dispose as chemical waste.
- ☐ Clean spill area with water and appropriate cleaning agent.
- ☐ Perform survey/monitoring as needed. In cases involving volatile isotopes, bioassay may be needed.
- ☐ Write Incident Report and mail copy to your DSA.

**CONTRACTOR'S RESPONSE TO HAZARDOUS MATERIAL SPILL**

Contractor warrants that in the event of an accidental discharge of hazardous materials, including etiologic (infectious) materials, the contactor shall, with due diligence, take immediate steps to correct the conditions as required by all federal, state, and local laws and regulations, including but not limited to Department of Transportation Hazardous Materials Regulations, Title 49, Code of Federal Regulations, California Code of Regulations,Title 8, and the California Highway Patrol regulations. Contractor shall immediately notify UCSF of all details regarding the accidental discharge by calling UCPD at ***(415) 476-1414***. Contractor shall consult with UCSF before making any public statements or issuing any press releases.

## SECTION VIII Frequently Asked Questions (FAQs)

*Will it be necessary to dispose of all materials and purchase/obtain brand new materials?*

No, specialty contractors will be hired to move RAM (Sec. I), chemicals (Sec. II), and biological materials (Sec. III). Some biomaterials may be moved by laboratory personnel (Sec. III). Controlled substances may also be moved, but CSO must be contacted first to establish appropriate procedures (Sec. IV).

*Will I be able to move anything myself in a personal vehicle?*

Yes, authorized persons will be able to move cultures and frozen biological materials (either hazardous or non-hazardous) according to OEH&S procedures (Sec. III). Authorized users listed in the CSA will be allowed to move controlled substances BUT user must contact CSO PRIOR to moving substances. You may move your own radiation survey meters.

*What types of items are laboratory personnel NOT permitted to move?*

Labs are not allowed to move chemicals or RAM. These items can only be moved by contracted company(s). Refer to Sections I and II.

*What is meant by "hazardous material"?*

"Hazardous material" includes all of the following: Biological (RG2 and RG3 organisms), RAM and chemicals.

*Does 'hazardous material' include research samples as well as reagents, chemicals, etc?*

Yes.

*What provisions will be made for critical storage conditions?*

BMTC will move freezers with generator-equipped trucks and provide backups.

*Is there anything that absolutely cannot be moved?*

No non-UL approved, non-compliant chemical storage cabinets, no hazardous wastes, and no bad or leaking containers will be moved; make arrangements for waste pick up well before moving day.

*How would I know what equipment is contaminated?*

Refer to Sec. I (Radiation), Sec. II (Chemicals), and/or Sec. III (Biological materials).

*How do I decontaminate equipment?*

For equipment used with RAM, refer to Sec. I.
For equipment used with chemicals, refer to Sec. II.
For equipment used with biological materials, refer to Sec. III.

*What if my equipment that was used with RAM cannot be completely decontaminated?*

For radioactive equipment that cannot be decontaminated, refer to Sec. I.

*Can I make decisions on moving day as to disposition of hazardous materials, e.g. that a certain chemical can be thrown out or given away?*

Yes, BUT there will be a charge for it and you will not be permitted to leave materials in your old laboratory.

## Section IX: Material/Equipment Checklists

## RADIOACTIVE MATERIALS/EQUIPMENT CHECKLIST

**MATERIALS:**

___ Perform physical inventory and decide whether to move, dispose, or transfer RAM or RAM-associated equipment.

___ RAM to be moved:
1 Label with isotope, total activity.
2 Notify RMC to package materials to be moved.

___ RAM to be disposed:
1 Prepare radioactive waste disposal form.
2 Call OEH&S at 476-1771 (Parnassus); 502-1129 (Mt Zion); 514-4407 (SFGH or other satellite locations) for pick up.

___ RAM to be transferred:
1 Prepare form for transfer to another lab.
2 Mail copy to OEH&S (Box 0942).

**EQUIPMENT*:**

___ Identify equipment not used for hazardous materials, MS affixes with Label A. (NOTE: RMC may not use Label A. Only MS has knowledge of equipment not used for RAM).

___ Identify equipment which MAY be contaminated.

__ Perform survey (wipe test) as described in Sec. I.

__ If < 3 times above background, RMC or MS affixes Label B.

__ If > 3 times above background, perform decontamination and re-wipe until < 3 times above background. RMC or MS affixes Label B.

__ If equipment CANNOT be decontaminated, RMC affixes Label C. (NOTE: MS cannot affix Label C. Only RMC has knowledge of Department of Transportation regulations concerning transport of contaminated equipment for these cases).

__ Contact RMC for resurvey and packaging for transport by RMC or common/private carrier.

___ Notify FMRM that equipment is ready to move by RMC or common/private carrier.

*These procedures may be done by either the lab or RMC.

# CHEMICAL MATERIALS/EQUIPMENT CHECKLIST

**MATERIALS:**

___ Perform physical inventory and decide whether to move, dispose, or transfer commercial compounds and research samples.

___ Materials to be moved:
1 Verify labeling.
2 Segregate based on compatibility.
3 Notify CC to package materials to be moved.

___ Materials to be disposed:
1 Segregate based on compatibility.
2 Schedule pick-up and disposal by CC.

___ Materials to be transferred:
1 Contact other labs for possible transfer.

**EQUIPMENT:**

___ Identify equipment which does NOT need to be decontaminated, affix Label A.
(NOTE: CC may not use Label A. Only MS has knowledge of equipment not used for chemicals).

___ Identify equipment which MAY be contaminated.
___ Prepare any equipment potentially contaminated:
Drain as much as possible of the solution out of the equipment (vacuum pumps are exempt).
Plug outlets to prevent residual leakage.
Clean the surface of the equipment with soap and water.
MS or CC affixes Label B.
___ Notify FMRM that equipment is ready to move.

# BIOLOGICAL MATERIALS/EQUIPMENT CHECKLIST

**MATERIALS:**

___ Perform physical inventory and decide whether to move or dispose cultures and research samples.

__ Materials to be moved in coolers:

- Use leak proof, screw capped, unbreakable plastic container(s).
  Place primary container(s) in leak proof container(s) (Coleman® cooler or similar) with tight-fitted lid(s).
  Add heat or cold source as required.
  Add newspaper or bagged Styrofoam peanuts.
  Seal the cooler with duct tape or packing tape.
  If contents are RG2, affix biohazard label.
  Prepare documentation as follows: PI name, phone, alternate contact, originating building and room number, destination building and room number, and inventory of contents.
- Put document in leak proof plastic bag and tape it outer container
- Transport by 2 knowledgeable persons.
- During transport, take two 1L spray bottles of fresh 0.5% bleach solution, sufficient absorbent material to disinfect and remove spills, and sufficient large plastic bags (not red biohazard bags).

__ Materials to be moved in freezers ("-80" or freezer section of refrigerator):

- Biohazardous material in freezers must be packed by BMTC only.
- Biomaterials must be in leak proof container(s) with tight-fitted lid(s).
- Add newspapers or Styrofoam peanuts to prevent movement.
- Seal outside of freezer with packing tape.
- BMTC will move freezer.

**EQUIPMENT:**

___ Identify equipment which does NOT need to be decontaminated, MS affixes Label A. (**NOTE**: Equipment moved by BMTC may not use Label A. Only MS has knowledge of equipment not used for biohazardous materials).

___ Contact BMC to decontaminate biosafety cabinets. BMC affixes Label B after decontamination.

___ Identify and prepare equipment which MAY be contaminated.*****
  Defrost refrigerators and drain incubators.
  Plug outlets to prevent residual leakage.
  Disinfect equipment with 5% bleach or 70% isopropanol.
  Clean surface with soap and water.
  BMC or MS affixes Label B.

___ Notify FMRM that equipment is ready to move by BMTC.

***** These procedures may be done by either laboratory personnel or BMC.

## GLOSSARY OF TERMS

BMC: Biological Materials Contractor: Vendor contracted to prepare biomaterials and associated equipment for transport.

BMTC: Biological Materials Transport Contractor: Vendor contracted to transport biological materials and associated equipment to new location after preparation by BMC.

BSC: Biosafety Cabinet: Ventilated cabinet which uses variety of combinations of HEPA filtration, laminar air flow and containment to provide personnel, product or environmental protection or protection of all components against particulates or aerosols from biohazardous agents.

BSL2: Biosafety Level 2: Specific degree of safe laboratory practices associated with research using biohazardous biomaterials in Risk Group 2 as described in Section IV of "Biosafety in Microbiological and Biomedical Laboratories," 5th edition, 2007.

BSL3: Biosafety Level 3: Specific degree of safe laboratory practices associated with research using biohazardous biomaterials in Risk Group 3 as described in Section IV of "Biosafety in Microbiological and Biomedical Laboratories," 5th edition, 2007.

BSO: Biosafety Officer: BSO is primarily responsible for implementing and overseeing the campus Biological Safety Program.

BUA: Biological Usage Authorization: BUA is issued to laboratories at UCSF doing research with biological materials by OEH&S and the UCSF Institutional Biosafety Committee.

CC: Chemical Contractor: Vendor contracted to prepare chemicals and associated equipment for transport.

CSA: Controlled Substances Authorization: CSA is issued to laboratories at UCSF with controlled substances as defined by the Drug Enforcement Agency.

CSO: Controlled Substances Officer: CSO is primarily responsible for implementing and overseeing the campus Controlled Substances Program.

DSA: Department Safety Advisor: Assigned by UCSF departments, the DSA is the primary contact person regarding all OEH&S activities.

FMRM: Facilities Management Relocation Manager: Assigned person having specific responsibility for coordination and oversight of movement of laboratory equipment, supplies, and materials, including hazardous materials.

LSC: Liquid Scintillation Counter: Instrument used for detecting and measuring the intensity of high-energy radiation.

MS: Move Supervisor: Person assigned by laboratory to serve as point of contact for FMRM and DSA and who will coordinate all aspects of moving hazardous materials for his or her laboratory.

MSDS: Material Safety Data Sheet: Document containing details of hazards associated with a given chemical and that gives information on its safe use.

PI: Principal Investigator: Person who directs a research project or program at UCSF. PI is responsible for all research personnel as well as safety in his or her laboratory.

RG1: Risk Group 1: Risk assessment assigned to biomaterials not considered hazardous to healthy persons.

RG2: Risk Group 2: Risk assessment assigned to biomaterials associated with human disease that is rarely serious and for which preventive or therapeutic interventions are often available.

RMC: Radioactive Materials Contractor: Vendor contracted to prepare radioisotopes and associated equipment for transport.

RUA: Radiation Usage Authorization: RUA is issued to laboratories at UCSF doing research with radioisotopes by OEH&S and the UCSF Radiation Safety Committee.

## Appendix I

## OFFICE OF ENVIRONMENTAL HEALTH & SAFETY, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

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|---|---|---|
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| William Lew | 476-5303 | Radiation Safety Officer |
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