

SAFETY

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NEWSLETTER

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WHEN YOU HAVE FINISHED READING THIS NEWSLETTER, PLEASE PASS IT ALONG TO OTHERS IN YOUR LABORATORY OR OFFICE.



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Environmental Health and Safety #717
50 Medical Center Way
San Francisco, California 94143

ANNUAL HAZARD COMMUNICATION AND EMERGENCY RESPONSE RETRAINING

The state hazmat regulations require people who work with hazardous materials be retrained annually. On even numbered years, this requirement is fulfilled with the biennial online refresher class. We have prepared a training module for the laboratories to use to fulfill this requirement. There are approximately 30 PowerPoint slides with notes attached. We expect laboratory groups to conduct this training during lab meeting, so that they can discuss lab-specific emergency response procedures and safety. Please complete this as soon as possible. Contact your DSA for more information.

ATTENTION !!!

No chemicals can be brought from the home into the labs or your office. This includes but is not limited to: pesticides, herbicides, fertilizers, and cleaning products. Please go through the proper purchasing channels when acquiring these chemicals.

PLEASE HAVE ALL PERSONNEL
IN YOUR LAB INITIAL HERE AS
EVIDENCE OF CONTINUING
EDUCATION & KEEP THIS
NEWSLETTER IN YOUR LOGBOOK.

LEARNING FROM THE PAST WHILE PREPARING FOR THE FUTURE

While those of us in the Bay Area not subject to devastating hurricanes like Katrina and Rita, we are frequently reminded that the "Big One", i.e., an earthquake, is going to happen sometime in the next several decades. Unlike the 3 or 4 day warning of the onset of a hurricane, earthquakes come without warning so we take some extra precautions ahead of time.

There are many steps that we can take to minimize the damage from an earthquake. Previous quakes revealed several areas where improvement was needed.



Seismic restraint of Liquid Nitrogen tank

STRUCTURAL SUPPORT FOR COMPRESSED GAS CYLINDERS.

During an earthquake, molly bolts, expanding bolts, and other types of drywall screws are not effective in securing heavy steel cylinders. They can be easily ripped out of the wall by the motion of the large, heavy cylinders, leaving them free to bounce, slide, and roll wherever the shaking ground sends them. Make sure that the support system for the cylinders in your lab is anchored to the wall studs or securely fastened to a desk port mechanism.

SEGREGATION OF INCOMPATIBLE CHEMICALS

Glass is an excellent storage container for almost all chemicals, but not during an earthquake. Should glass bottles of incompatible chemicals

SECURING AND CONTROLLING ISOTOPES

BACKGROUND

Laboratories where radioactive materials are used must comply with the security guidelines issued by the Nuclear Regulatory Commission (the Federal Agency in charge). The specific requirements are in Title 10 Code §20.1801 of Federal Regulations, Storage and Control of Licensed Material.

The Code states:

The licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.

The licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.

These requirements are intended to prevent the unauthorized removal of radioactive materials from approved locations. Of primary concern are vials of stock solutions, large quantities of liquid waste, and other concentrated radioactive materials.

To meet the regulatory requirements, the UCSF Radiation Safety Committee (RSC) has issued the following guidelines:

BEST APPROACH

Laboratories where radioactive materials are used or stored could meet the (Continued on page 2, see *Securing*)

(Learning continued)

math of strong quake is understandably a time of extreme havoc and confusion; however, sometimes simply throwing absorbent onto a chemical spill can avert hazardous chemical reaction.

ENGINEERING MODIFICATIONS

Something as simple as an inch-high lip at the edge of shelves can prevent bottles and beakers from falling.

Sometimes the most serious hazard during an earthquake in a lab is not the potentially dangerous mixing of chemicals but the amount of glass shards generated as a result of empty flasks and breakers dropping onto the floor and onto bench tops and shattering. A wooden lip, or even a rubber strip, will help reduce the likelihood of glassware falling from shelves.



Freezer Restraint

These earthquake damage prevention and minimization steps a few that can be done to diminish the overall impact of a large earthquake at UCSF; there are no ways to avoid the next quake, but there is much that can be done to prevent excess damages to property and equipment as well as minimize human health hazard.

In spite of good storage and segregation of chemicals, a strong earthquake will inevitably cause breakage and spills. We can minimize damage and possibly injury with appropriate spill response. Lab members need not be safety experts to effectively respond to spill. Have some basic spill response equipment available in your lab: absorbent sheets, brooms, neutralizing agents and PPE. Discuss

lab response to a spill ahead of time and make sure everyone knows what to do and location of supplies. For more information contact your Department Safety Advisor, or call OEH&S at 476-1300.

(Securing continued)

requirements by establishing simple criteria for two scenarios:

- **Laboratory is Occupied:** Maintain vigilance in the laboratory and ask unknown individuals who enter the laboratory if you can help them, e.g. "Are you lost?" or "Can I help you?" If the response is suspicious, contact the campus police.
- **Laboratory is Unoccupied:** Lock the laboratory when unoccupied. In general this policy should extend to all laboratories and offices to prevent losses due to theft.

Laboratories are vulnerable during evenings and the weekends when less people are in the labs. During evenings and weekends, personnel should lock the lab doors even when the lab is occupied.

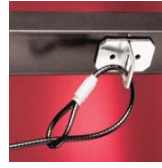
ALTERNATIVE APPROACH

The RSC recognizes that UCSF fosters multi disciplinary research being conducted in shared and open facilities (e.g. Mission Bay Neighborhoods). In these instances it is not feasible to lock areas where radioactive materials are used. As a result, investigators should use alternative methods to secure radioactive materials:

Refrigerators and freezers: Lock the refrigerators and freezers, if possible. If the door does not have a lock, secure the handles to the refrigerator/freezer (see photos). Use a locking cable around the refrigerator/freezer, or use a locked storage box.

Telephone 800-456-1789

http://www.flexguard.com/cgi-bin/ez-catalog/cat_display.cgi?5X302180



Lock box: Use a lock box for walk-in refrigerators and freezer. Examples of lock boxes and a means to secure the box are below.

http://www.rpicorp.com/products/prod_list.htm?catid=4&catid=522



If you would like more information regarding storage of radioisotopes please contact your DSA.

EMERGENCY PREPAREDNESS

Each of us, at some point in our lives, may be faced with a disaster. To be prepared, we need to plan on what we need: at home, in our vehicle, and at work for our department and ourselves.

The Centers for Disease Control and Prevention recommends that the following list be used to begin your planning. These are items you might want consider having on hand to last 72 hours in the event of a disaster. Water, food, medicine, and other consumable items should last at least two weeks. When evaluating this list, please keep in mind whether you are preparing for you home or work environment. Talk to your children's school to see what they have on hand and what you might consider adding to their supplies.

<http://www.bt.cdc.gov/disasters/earthquakes/supplies.asp>



HOME SURVIVAL SUPPLIES

- Water 2 quarts to 1 gallon per person per day (remember pets too)
- First aid kit
- First aid book
- Food
- Non-electric can opener
- Blankets or sleeping bags for each person
- Portable, battery-operated radio and extra batteries
- Essential medication, copies of prescriptions and eyeglasses
- A-B-C type fire extinguisher
- Flashlight with extra batteries and bulb
- Watch or clock
- Battery-operated smoke detector
- Escape ladder for multiple story home
- Food for pets
- Money

SANITATION SUPPLIES

- Large plastic trash bags and trash cans
- Bar soap
- Liquid detergent
- Shampoo

- Toothpaste and toothbrushes
- Pre-moistened towelettes
- Deodorant
- Denture cleanser
- Feminine supplies
- Infant supplies
- Toilet paper
- Portable toilet chemicals
- Newspaper
- Household bleach

HOME SAFETY AND COMFORT

- Sturdy shoes
- Heavy gloves
- Candles
- Matches
- Clothes
- Knife or razor blades
- Garden Hose
- Tent
- Hat or cap
- Disposable facemasks
- Photos of loved ones

HOME COOKING

- Barbecue, hibachi, or camp stove
- Fuel for cooking equipment
- Plastic tableware
- Paper plates and cups
- Paper towels
- Heavy duty aluminum foil
- Plastic food wrap

HOME TOOLS AND SUPPLIES

- Ax, shovel, broom
- Crescent wrench
- Screwdriver
- Pliers
- Hammer
- Coil of 1/2 inch rope
- Plastic tape or duct tape
- Pen and paper
- Deck of cards, toys for children
- Pail for carrying water or supplies

- Non-perishable food, bottled water
- First aid kit and book
- Flares
- A-B-C type fire extinguisher
- Blanket or sleeping bag
- Sealable plastic bag
- Flashlight with extra batteries and bulb
- Essential medication
- Tools such as screwdriver and pliers
- Short rubber hose for siphoning
- Small package of tissues
- Local maps
- Extra clothes
- Sturdy shoes or boots

WORK-MINI-SURVIVAL KIT

- Non-perishable food, bottled water
- First aid kit
- Flashlight with extra batteries and bulb
- Essential medication
- Heavy Duty gloves
- Change of clothes
- Sturdy shoes or boots
- Pre-moistened towelettes
- Small package of tissues
- Light weight Tools
- Blanket

DEPARTMENTAL SURVIVAL KIT

- Non-perishable food, bottled water
- First aid kit
- Emergency Lighting
- Facility for maintaining temperature of experimental procedures
- Tools
- Portable, battery-operated radio
- Blankets

Keep in mind, the above listing is a suggested list; your individual needs may vary. For example, if your lab has freezer and your experiment requires that the temperature not vary, how much dry ice will you need to maintain the temperature without power for 72 hours? Keep these things in mind as you plan for your home and work; think about where you will store necessary items and how you will make do when disaster strikes.