



Physics Division All Hands Meeting

May 2, 2006

Ron Madaras

- Organization and responsibilities
- Hazards found in labs
- Ergonomics
- Emergency Preparedness
- Reporting injuries and hazards



Division EH&S Organization

Division Director

Group Leaders/Supervisors

Every Person in Division

Division Safety Committee:

John Emes

Maurice Garcia-Sciveres

Richard Kadel (+ LBL SRC)

John Kadyk

Ron Madaras

Nick Palaio

Frank Rosado

Tony Spadafora

Cathy Thompson

Safety Coordinator:

Ron

Safety Support:

Frank Rosado

Phyllis Pei

Marty White

EH&S Liaison:

Marty White

EHS on Division web site:

<http://www-physics.lbl.gov/>



Some of Your Responsibilities

- Know how to do your job safely.
- Perform work safely.
- Identify and control hazards in your office and lab.
- Help your colleagues to work safely.
- Use “stop work” authority if necessary.
- Report all accidents, incidents and “near misses” to Supervisor.
- In particular:
 - Take the Job Hazard Questionnaire (JHQ) since 3/29/06.
 - Attend all required EH&S training classes.
 - Fix hazard violations in your office and lab.
 - Pay serious attention to ergonomics (more later).

Stop Work Policy

LBL STOP WORK POLICY

All Berkeley Lab employees, contractors, and participating guests are responsible for stopping work activities that are considered to be an imminent danger.

- ◆ Alert the affected employee(s) or contractor(s) engaged in the unsafe work creating an imminent danger condition and request that the work be stopped.
- ◆ Call x6999 and report the incident. An EH&S staff will investigate.
- ◆ Notify your immediate supervisor and/or responsible division/department manager.



Some Supervisor Responsibilities

- Line management responsibility for safety of group members.
- Ensure that all group members:
 - Are working safely.
 - Take the JHQ (since 3/29/06), and ensure that it is correct.
 - Attend all required EH&S training classes, esp. ergonomics.
- Annually identify hazards in labs via Project Safety Questionnaire.
- Provide On the Job Training for hazardous activities, if needed.
- Monthly informal walkthru of their labs, fixing hazard violations.
- Quarterly formal walkthru of their offices and labs, tracking and fixing hazard violations.
- Quarterly EH&S activity report documenting walkthrus, training and communication with group members.
- Prepare Supervisor's Accident Analysis Reports (SAAR).

Hazards found in labs

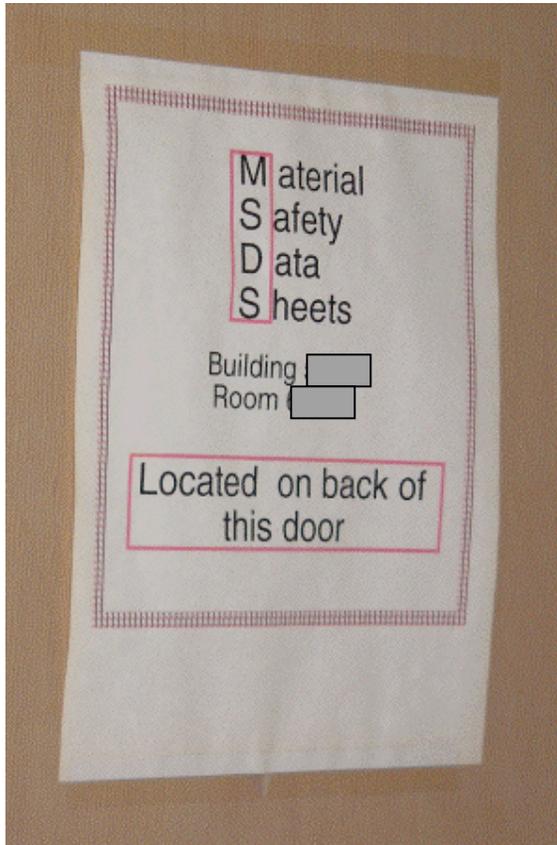
Hazard Violation



Electrical boxes must be supported; strain must not be placed on cord caps

Hazard Violation

X Ensure labeling is accurate

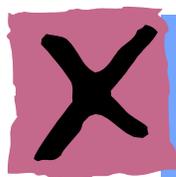


Front of door



Back of door

Hazard Violation



**Label all containers
to prevent confusion,
accidents and injury**

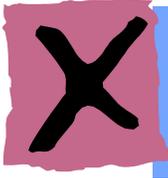
Hazard Violation

 Oven needs seismic bracing



Hazard Violation



 **Chair clutter blocks emergency egress**

Proper Labeling and Storage

 **Proper labeling and storage**



Properly Secured Gas Cylinder



**Properly secured
gas cylinder**

Ergonomics

Ergonomics

Ergonomics is one of our **biggest concerns and problems**.

Ergonomic injuries can be the end of one's career, and we are seeing ergonomic problems at younger ages than before.

You should:

- Take ergonomic **training**, EHS0060, if you use a computer.
(Required if computer use is > 4 hours/day)
- Request an ergo **evaluation** to optimize your computer setup.
- If you feel any **discomfort** at all when using your computer:
 - Immediately notify your Supervisor or Safety Coordinator.
 - Request an ergo evaluation (specify “due to discomfort/pain”).
 - See Health Services “if more than just a little discomfort” or if the discomfort continues, and check back if necessary.
- Learn **principles of good ergonomics** for using computers, and also for tasks including lifting, microscopes, etc.



How to Request an Ergo Evaluation

An ergonomic evaluation request can be made by an employee, supervisor or safety coordinator.

Steps:

- **Go from Berkeley Lab home page A-Z index to “Ergonomic Evaluation Request”.**
- **Enter LDAP user name and password.**
- **Select ~~“My Evaluation”~~. “Request My Evaluation”**
- **Complete information.**
- **Submit.**

For additional information contact Jeffrey Chung, EH&S Division (5818).



Ergonomics Loaner Chair Program

- Variety of chairs available for 2 week test.
- Ergo chairs on display at 75B-110B.
- Ergo Display Room Hours: 8 am – 5 pm.
- Download loaner form, complete and fax to LBNL Warehouse (x4898).
- Chair delivered to your office at no charge
- Pay only when you keep the chair.
- Hard to fit/special needs, contact Jeffrey Chung at jychung@lbl.gov or (x5818).



LBNL Ergonomic Resources

Ergo Accessories Loaner Program



- Variety of products stocked and available for 2 week trial use at no cost.
- Program provides employees opportunity to try out different devices before committing funds to actual purchase.

Keyboards

Mice

Wrist rests

Number pads

Document Holders

Glare screens, etc.



- Pay only when you keep the product.
- Special accommodations or devices, contact Jeffrey Chung at x5818 or jychung@lbl.gov

Proper Sitting Prevents Ergo Discomfort

- Feet resting comfortably on floor or on footrest.
- 2-4 inch gap between knees and front edge of seat when sitting against backrest.
- Curve of chair back fits into curve in lower back.
- Backrest upright or tilted back for comfort; provides upper back support.
- Armrests slightly below elbows when shoulders relaxed.
- Armrest do not interfere with keying, mousing or writing.



For additional information contact Jeffrey Chung, EH&S Division (x5818).

Proper Keying Prevents Ergo Discomfort

- Shoulders should be relaxed and elbows close to body.
- Elbows bent to 90 degrees or slightly greater (inner angle).
- Top of “home row” keys at the same height as elbows, or slightly lower than elbows.
- Wrists straight (not bent or deviated).



For additional information contact Jeffrey Chung, EH&S Division (x5818).

Laptop Ergonomics

Laptop Ergonomics:

- Use external input devices, monitor and docking station.
- Raise laptop so that you are able to see screen without bending or rotating neck.
- Be aware of your posture (wrists, hand neck, etc.).
- Ensure proper seating.
- Carry only essential laptop accessories.

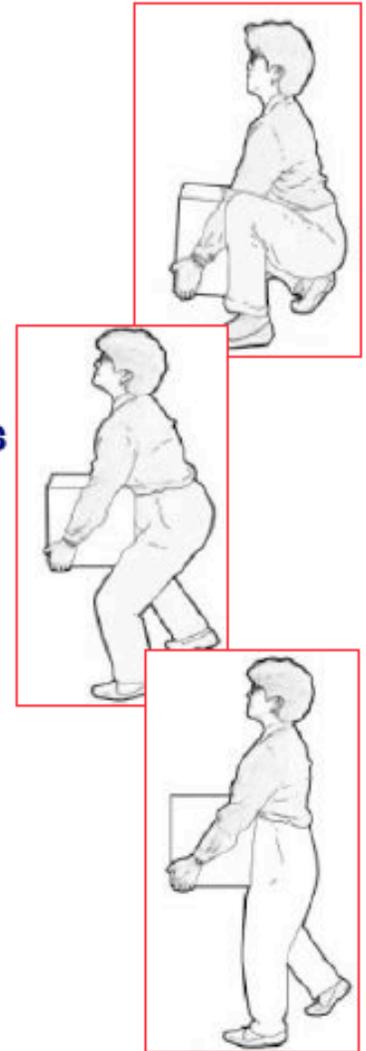
For more information
contact Jeffrey Chung,
EH&S Division (x5818).



Proper Lifting and Carrying

- **Pre-plan**. Know where you're going before you lift. Choose a clear path. **Get help** or use a lift-assist device when needed.
- **Increase balance** by keeping feet shoulder-width apart. One foot should be slightly forward.
- **Get close to the load**. **Take deep breath** and **tighten stomach muscles** before you lift.
- **Bend at your knees and hips**, not waist. Lift using leg muscles to reduce the load on your back.
- **Lift smoothly**. Don't jerk as you lift. Sudden movement and weight shifts can injure your back.
- **Face the load** you are lifting.
- **Hold the load close** to your body at waist height.
- **Turn your feet, not your back**, to avoid twisting when lifting or lowering.

For more information contact Jeffrey Chung, EH&S Division (x5818).



Ergo Injuries are Preventable

**Ergo injuries are PREVENTABLE
if DISCOMFORT is reported early!**

Signs of common musculoskeletal discomfort include:

- Soreness
- Pain
- Numbness
- Cramping
- Tingling
- Burning
- Swelling
- Strength Loss
- Skin color change
- Stiffness, loss of flexibility
- Vision discomfort

When you begin to experience musculoskeletal discomfort:

- **Notify your supervisor and safety coordinator.**
- **Request an ergonomic evaluation.**
- **Seek medical assistance from Health Services.**

Emergency Preparedness

Emergency Preparedness

Emergency Preparedness Web Site

<https://ehswprod.lbl.gov/ehs/ep>



Emergency Preparedness

x7032 or vjlucus@lbl.gov

Fax: x7014



Security Dispatch Center x5472



Health Center: x6266



Non-Emergency Incident Reporting:

x6266



Site Access x4551

(ID cards, parking, gate access)

<http://www.lbl.gov/workplace/site-access/>



EHS Pub 3000

<http://www.lbl.gov/ehs/Pub3000/>

Chapter 9: Emergency Management

Chapter 23: Seismic Safety



Employee Emergency Status:

[1-800-445-5830](tel:1-800-445-5830)

Emergency Preparedness

AT BERKELEY LAB

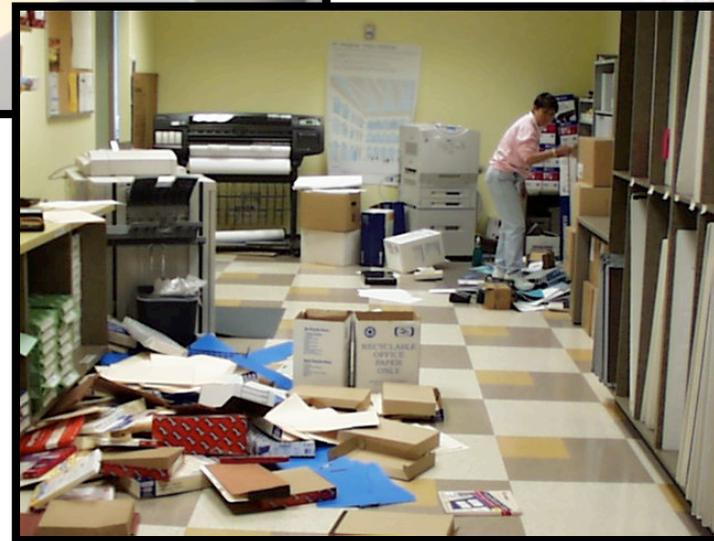
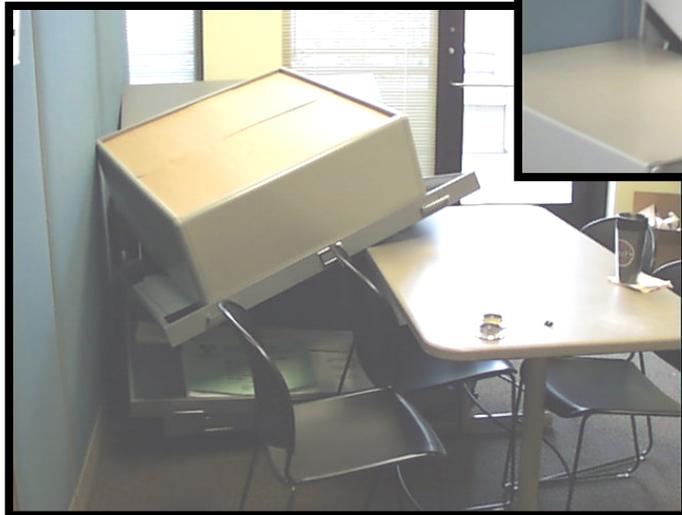
Employee Pocket Guide



For emergencies dial x7911
(dial 9-911 from designated phones,
911 from non-Lab phones)

What Earthquakes can do ...

**Washington State University
Nisqually EQ 2/28/01
Seattle, WA**



Earthquakes and Seismic Safety

RESPONSE:

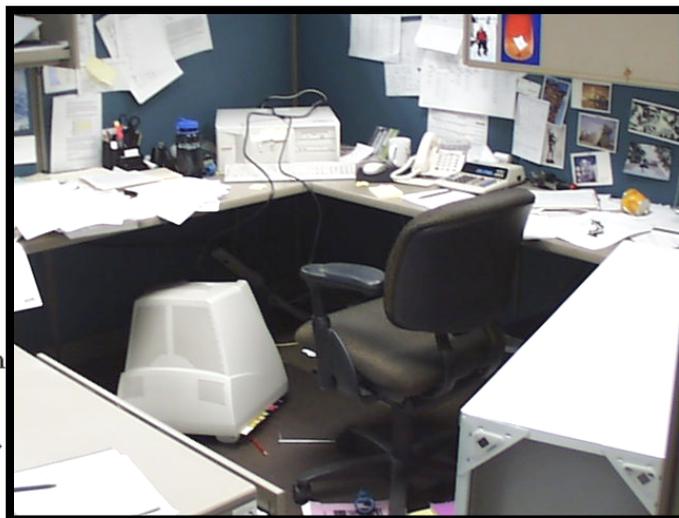
Do not panic or run.

Damage and falling debris may block exits and cause injury.



Remember to Drop, Cover and Hold:

- ◆ DROP — Drop to the floor.
- ◆ COVER — Seek sturdy overhead protection such as a desk, table, work bench, or room corner away from windows.
- ◆ HOLD — Hold on to the protection you've chosen and be prepared to move with it until the shaking stops.



EVACUATION

- ◆ If possible take car keys and small personal items, as reentry to your building may be delayed for days.
- ◆ Evacuate immediately. Use the evacuation routes and assembly area posted in your building.
- ◆ Follow Building Emergency Team instructions.
- ◆ Do not attempt to re-enter any buildings until instructed to do so.
- ◆ Do not try to drive off the Lab until road conditions are declared safe.

SAFETY MEASURES IN THE OFFICE and Home

- ◆ For bookcases and file cabinets over 3 feet tall, fasten to walls or the floor.
- ◆ For open shelves above 4 feet, install lips or chains to prevent contents from falling.
- ◆ Store heavy items on floors or no higher than 3 feet on shelving.
- ◆ Secure computers, printers and FAX machines to desktops with velcro fasteners from LBNL Stores.
- ◆ Fasten storage shelves, bins or racks to the floor or wall.

SAFETY MEASURES IN LAB SPACES

- ◆ Store hazardous chemicals or glassware in base cabinets or braced wall cabinets with secure door latches. Shelves should have 3-inch high lips of plexiglass.

GENERAL SAFETY MEASURES

- ◆ Evacuation routes must be kept clear, and materials that could block routes must be removed or braced to prevent movement.

Put together a
PERSONAL “comfort” kit
in case you get stuck here.

EMPLOYEE PERSONAL KIT:

- *Water/Food for one day
- *Prescriptions or personal medications
- *Extra pair of glasses or contact lenses
- *Cash (small bills and coins)
- *Walking shoes, jacket, hat
- *Personal care and hygiene items
- *Light source or flashlight/batteries
- *Radio (battery/crank operated)
- *Emergency blanket/sleeping bag

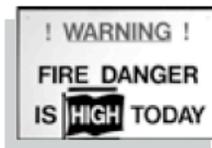


Fires

Urban-Wildland Fires

DIABLO-WIND DRIVEN FIRES IN THE BERKELEY HILLS ARE DIFFERENT FROM A STRUCTURE OR GRASS FIRE.

They are windswept blazes during hot, dry weather conditions. Often, they can't be extinguished until weather conditions change. The East Bay hills have experienced 15 major urban-wildland intermix fires since 1923.



HOW TO PREPARE AND RESPOND

- ◆ Be especially alert during Red Flag Days—warm days with hot, dry winds.
- ◆ Listen for and follow instructions over the Lab's public address system.
- ◆ Be prepared to evacuate the Lab on foot. Keep a pair of walking shoes in or close to your work area.
- ◆ If an evacuation by vehicle is authorized, offer rides to other evacuees.
- ◆ Understand how to shelter-in place if advised to do so.
- ◆ Follow directions from traffic and security personnel.

Fire Alarms and Small Fires

RESPONSE TO FIRE ALARMS

Fire alarm bells or klaxons can be sounded at manual fire call boxes, or by automatic detection of smoke, heat or sprinkler water flow.

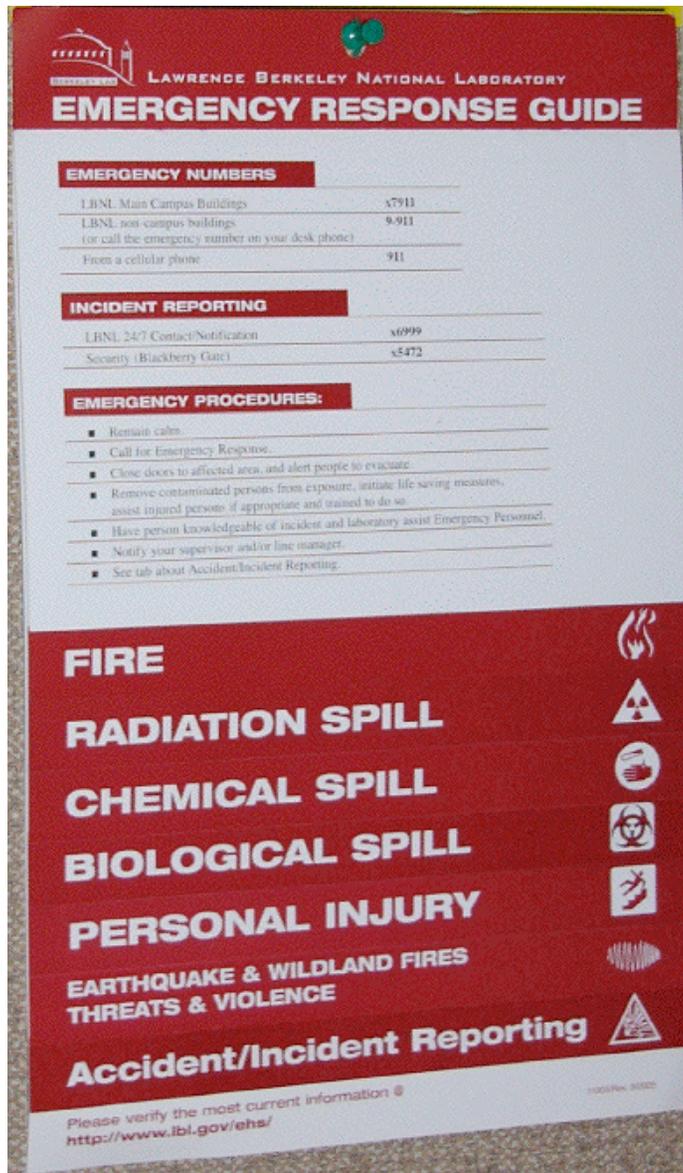


- ◆ Evacuate immediately using routes and assembly areas posted near each exit.
- ◆ Take only minimum personal needs such as car keys, a purse or coat.
- ◆ Follow directions of your Building Emergency Team.
- ◆ Do not reenter your building until it is declared safe by the Fire Department.
- ◆ **DO NOT USE ELEVATORS!**

WHAT TO DO IF THERE IS A SMALL FIRE?

- ◆ Alert others in the immediate area.
- ◆ Activate nearest fire alarm.
- ◆ Call x7911 or 9-911.
- ◆ Use extinguisher only if trained.
- ◆ Always maintain access to an exit. Do not let fire get between you and the exit.
- ◆ Avoid smoke or fumes.
- ◆ Notify your supervisor.

Emergency Response Guide



The Guide must be in every **lab** and **hallway**.

It would be great to have one in your **office** too!

We have some here; get more from Marty White, x7663.

(Latest version is “9/2005”)

Reporting Injuries & Hazards

Reporting Work-Related Injuries

- **Report work-related injuries to your supervisor immediately.**
- **Go to Health Services for treatment to prevent:**
 - Increased pain from condition worsening.
 - Longer treatment.
 - Hospitalization due to wound infection or increased severity of injury.



For more information contact Wendy Corr, EH&S Division (x4483).



Reporting Hazardous Conditions

- If you are concerned about a hazard that is related to your work, please discuss the issue with your supervisor. Your Division's Safety Coordinator is also another resource.
- If the hazard concerns the physical infrastructure of the Lab (i.e. a broken stair, accumulation of leaves or debris on walkways) contact the Facilities Work Request Center via the Web or by phone (x6274).
- Safety concerns can also be sent to the EHS Division via the Safety Concerns Webpage.

For additional information contact Richard Debusk, EH&S Division (x2976).

Conclusions

- Perform work safely.
- Identify and control hazards in your office and lab.
- Pay serious attention to ergonomics (LBL and home).
- Help your colleagues to work safely.
- Prepare for emergencies.
- Report all injuries, accidents, incidents and “near misses” to Supervisor.