

Note: If you are indifferent towards safety you will put us all at risk !
It is important that you are interested in safety, want to stay healthy, and care about your coworkers.
Give safety high priority, be involved, proactive, and creative – everybody counts on you.

6/17/2010

SAFETY WATCH LIST: Remember the BASICS

General

- You are responsible for safety and a safe work environment
- It is your right and duty to stop any unsafe work at LBNL
- In all cases do Integrated Safety Management (ISM)
- Be familiar with the Emergency Response Guide and other important contacts
- Before you start satisfy your basic needs: get Space, Light, Time, Tools
- Wear and use the required Personal Protective Equipment (PPE)
- Read the labels and information on lab doors and inside the labs
- Work with a partner whenever possible (esp. in a hazardous environment)
- Respect the no food/no drink signs in the work areas
- Stop your work if you are in doubt - ask people for help or clarification
- Avoid generating trip hazards – keep aisles free
- Clean up after you are done (especially put back chemicals, glues, sharp tools...)
- Inform others about hazards and test setups (use labels, write emails...)
- Read the labels, warning signs, procedures, manuals, MSDS before you start using the tools, equipment, and devices

Seismic

- Secure heavy items which are taller than 3 feet
- Secure heavy items which are stored higher than 3 feet
- Prevent carts and crates on wheels from involuntary motion
- Secure gas bottles and liquid nitrogen reservoirs (leaving the gas bottle in the cart may be an option; however: block the wheels of the cart)

Electrical

- First: ground the device – second: start water or fan cooling and check it
- Do not touch energy sources (batteries, decoupling boxes, voltage dividers...) with >50V AND >5mA
- Do not daisy chain (incl. combining extension cables)
- Check heating tapes for broken insulations before you use them
- Stay 3 feet away from the device in case of spark tests/open boxes under voltage

Pressurized Gas

- Do not transport gas bottles in cars or trucks
- Do not store Acetylene bottles horizontally
- Toxic gases have to go into a gas cabinet
- Use a fan at the regulator for flammable gases (H₂, CH₄...)
- Perform a leak test of the gas system before first use
- Before use: check valves, gaslines, and regulator before opening the gas bottle
- Never break the gasline of a toxic gas bottle before it is disconnected at the regulator IN the gas cabinet

Chemical

- Treat your immediate environment, tools, and hands as contaminated before, while, and after your work
- Clean up before you start working and after you are done to avoid unwanted reactions
- Always segregate incompatible chemicals and gases
- Use gloves of the right size and appropriate material and safety glasses
- Use gloves, safety glasses, and lab coat when handling amounts of more than 100ml (e.g. filling squeeze bottles)
- Throw away used gloves
- Put the chemical waste in Satellite Accumulation Areas (SAAs) and inform SAA manager

Soldering

- Use a fan to deflect the fumes
- Use safety glasses to protect your eyes from splashing hot flux
- Use gloves (if convenient) to protect your hands from splashing hot flux
- Wash your hands in case you touched lead based tin

Cryogenic and Heating

- Wear safety glasses + face shield, cryo gloves, and closed toed shoes when dispensing LN2 at a pressurized dewar
- Wear safety glasses, (nitril) gloves, and closed toed shoes when transporting LN2 in an open dewar and while filling the cold trap
- Wear gloves when installing heating tapes to prevent itchy skin from fibers
- Beware of all hot and cold surfaces (incl. chamber, pumps, gas lines, funnels...)

Noise

- Use ear plugs and ear muffs whenever possible
- Beware of the pressurized air outlets in the labs (they are louder than >100dB)

Ergonomics

Office:

- Get the right chair – sit straight – have a knee angle of 100deg
- Your monitor should be one arm length away
- Adjust the monitor height so that the top edge is equal to your eye level
- Try to minimize the glare on the monitor
- Don't bend your wrists – consider supports for your wrists and arms
- Use the most convenient keyboard and mouse
- Take frequent breaks

Lab:

- Avoid heavy lifting whenever possible
- Work in teams – use tools (crane, lab jack, carts....)
- Lift with your back straight – use your knees
- Make use of step stools, ladders, scaffolds....
- Be aware of changing loads and sharp objects in your way while working