A MESSAGE FROM THE JILA CHAIR . . .

The safety of our people is of the highest priority at JILA. However, the nature of the experimental work done at JILA brings with it hazards such as fire, explosions, chemical spills, or natural gas leaks. In this environment, there are some basic things about safety that you need to know, even if you are a theorist or administrator who never visits a lab.

We know everyone's time is short but this topic is important, and we have tried to keep this booklet on basic safety at JILA as short and relevant as possible.

If you plan to spend more than just a few minutes in any lab, you must also read the appropriate Lab Safety Modules and pass quizzes on them. Before taking either the electronics or shop classes, you must also pass the quiz on Machine Shop Safety.

I hope that you will join with me in working to keep JILA as safe as possible.

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EMERGENCY PHONE NUMBERS

- Call 911 for the emergency line to the University of Colorado (CU) Boulder Police Department.
- Call 2-6666 from an on-campus phone or 303-492-6666 from a cell phone for help from the CU Police if instant response is not crucial or if you cannot get through on 911.

SAFETY CONTACTS

The JILA Safety Officer is Beth Kroger, JILA Chief of Operations (x2-5625, Room A233).

For building equipment problems, contact the building proctor, Jason Ketcherside (303-265-1341, Room S195).

For questions related to management of hazardous materials or waste do not hesitate to contact Environmental Health and Safety (303-492-6025) or via e-mail (ehs@stripe.colorado.edu).
JILA EVACUATION:

Upon hearing the evacuation alarm (loud whoop from low to high every few seconds), remain calm and evacuate the building immediately closing all doors behind you via the shortest and safest route and move a safe distance from the building.

In case of fire, explosion, or suspected natural gas leak, activate the red pull-box, located at either end of each B-wing and X-wing laboratory floor, on each floor in the tower, and elsewhere in the building, and evacuate immediately. (Take note of the pull boxes near your work area).

In case of a dangerous chemical spill, activate a yellow pull-box, located at the ends of each B-wing floor, and evacuate immediately.

Safe Evacuation Tips:
- When evacuating the building, quickly take personal belongings (ID, keys, purse, cell phone, wallet) and dress appropriately for the weather.
- Do not take time to shut off appliances or electrical equipment.
- If there is fire or smoke, stay low to the floor and exit the building quickly.
- Use an alternative escape route to avoid smoke if possible.
- Don’t open warm doors. Test doors with the back of your hand before opening them.
- Exercise extreme caution in exiting, avoiding fixtures, wires, and unstable structures.
- Be sure to know more than one way to exit each building.
- DO NOT USE AN ELEVATOR. The tower has two completely separated stairwells located on opposite sides of each level in the tower.
- Move at least 100 feet away from JILA building. (SW corner of Farrand Field, parking lot entry north of Environmental Design building or east end of Duane Physics Lawn).

Once you have evacuated a safe distance from the building,
- Call 911 from the nearest phone in a safe area. Be prepared to provide JILA’s location, details of the emergency event (location, type of problem, etc.), any injured persons, whether there may be persons still inside the building, your name, your phone number, and where you will meet responders.
- Await emergency response personnel at a safe location, direct them to the scene and follow their instructions. Be prepared to answer their questions.

Do not re-enter the building for any reason until emergency personnel have advised you that it is safe to do so. If you suspect that someone is missing or trapped, contact the emergency personnel outside the building.

If you are trapped during an evacuation emergency:
- close doors between you and fire and stuff cracks around the doors to keep out smoke.
- signal/call for help from a safe window if building is stable or take refuge under a sturdy table or desk if items are falling from bookshelves/ceiling.
- Call 911 and tell them exactly where you are.
- Stop, drop, and roll if your clothing catches fire.
OUTDOOR WARNING SIREN
This five-minute warning siren followed by voice message signals a general emergency or disaster for CU or Boulder County. The outdoor warning siren is part of a countywide system for announcing events such as floods, tornados, terrorist threats, and other dangerous situations as well as alerting those on campus to dangerous situations at the university.

CU-BOULDER CAMPUS ALERTS
CU-Boulder notifies members of the community of emergencies through campus alerts, but the system cannot work without everyone’s active participation. Information about campus closures and other emergencies is available via

- Text messaging — Sign up at http://www.colorado.edu/alerts/ Web — You can also visit www.colorado.edu or CUConnect for detailed information and updates.
- Hotline — Call the campus hotline at 303-492-INFO for recorded updates.
- E-Mail — Check your official university e-mail account for important safety messages.

FLOODS
Call Chris Purcell at 720-208-8754; be aware of electrical shock hazard

If you discover a major water leak or flood,

- Immediately call Jason Ketcherside at 303-265-1341 to report it. After hours, or if you cannot reach Jason, call Facilities Management, 2-5522.
- If it is safe to do so, turn off and unplug all electrical equipment in the path of spreading water.
- Do not step in water as it may be in contact with electricity.
- Do not unplug an electrical appliance that is in contact with water.

If you discover a small, manageable flood,

- Use the JILA wet-vac (currently in B1B25).
- Contact Jason Ketcherside at 303-265-1341 for a supply of absorbent material for dealing with minor oil spills. This material is located in a large “trash” container on the sub-basement level of the B-wing, just outside the freight elevator door.

JILA SAFETY TRAINING
Mandatory Safety Training

- All JILA employees and students must review the JILA Basic Safety Guide and pass the JILA Safety Quiz.
- All employees, students, and staff performing any type of work in a laboratory must read the JILA Lab Safety Modules and pass the quizzes on the relevant modules.

Voluntary Safety Training
From time to time, JILA offers training in the use of the defibrillators (located on the wall in the center of each of JILA’s lab wing corridors), in CPR (needed for use with the defibrillators) and in First Aid. You should take advantage of these training opportunities when they are offered.
MEDICAL EMERGENCIES
CALL 911 IMMEDIATELY. (SEE SECTION ON WORKPLACE INJURY AND REPORTING REQUIREMENTS FOR JILA EMPLOYEES AND NIST STAFF.)

If you’re certain emergency assistance is not necessary, call UCB Police at 2-6666 for backup, or go to an urgent care facility. Students (undergrad and graduate) can call Wardenburg Health Center (x2-5432) for non-emergency appointments.

When there are serious injuries or sudden illnesses that require immediate attention, an ambulance will take the injured person(s) to the nearest emergency room.

- In more serious cases, someone knowledgeable about the incident or known to the injured person(s) (i.e., a JILA faculty member or other member of the laboratory group) should go with the patient to the hospital. This person should provide encouragement for the injured person(s), facilitate the registration process, and advocate for prompt and effective treatment.

- The hospital may request information about medical insurance. Persons not employed by either CU or NIST must rely on their own medical insurance coverage or Workers’ Compensation plans from their employer or their own personal plans and should follow the provisions of their personal health insurance policy or Workers’ Compensation insurance with respect to their treatment (or follow-up care in case of an emergency).

JILA SAFETY EQUIPMENT
JILA has general-purpose safety equipment in the laboratory wings and the tower. Scientists, students, and staff are urged to locate and know how to use this equipment. Any questions concerning the use of this equipment should be directed to Beth Kroger (A233, x2-5625).

- Chemical safety showers are located in the men’s rooms in the basement, first and second floors of B-wing; in rooms B124 (via B128), B1B12, and B216; in the basement annex between S1B40 and S1B20 and also near X1B21.

- Portable defibrillators are located on the wall in the center of each of JILA’s lab wing corridors as well as near the x-wing ramps on the lower two floors. These “heart start” devices are designed for use by the ordinary person if someone experiences sudden cardiac arrest. These units will talk you through their use.

- Eye protection is required by Colorado law for anyone working in a laboratory. Eye protection is defined as shatter-proof safety glasses or goggles. Eye protection is located near the entrance or at the lasers in all JILA labs.

- Pressurized eye-wash fountains are located in the halls near rooms X1B21, S1B20, B1B12, B1B38, X131, B117, B143, and B240, as well as inside room B135 (via B131). They are also installed over the utility sinks of some laboratories.

- Fire extinguishers are located in every lab near the entry as well as throughout the lab hallways. They are primarily for the use of police, fire fighters, and others who have received training in their use. They should only be used for small, well-contained fires.

- First-aid kits are found in all lab and shop areas, as well as in A225.
• **Fire blankets** are located in the hall by B137 and in B128A.

• **Oxygen level sensors** are installed in the X-wing service corridors and in the Clean Room so that an alarm will sound if the oxygen level falls or rises to dangerous levels. If an oxygen alarm is sounding, assume there is a present danger, evacuate the area and call for assistance. The alarm is connected to the CU alarm station and should elicit a prompt response.

**OTHER SAFETY ISSUES**

• **Contact lenses.** Serious injury to the cornea can occur when chemicals or vapors become trapped behind contacts. To avoid this problem use prescription goggles/safety glasses.

• **Dangerous chemicals and lasers.** You must pass the Lab Safety quiz to enter a JILA Lab. Please also use extreme caution when entering an unfamiliar Lab. Always wear eye protection when lasers are in use, unless they are completely enclosed.

• **Earthquake.** If you feel the ground shaking, drop, cover, and hold on in a safe place such as under a sturdy desk or table. Wait for the shaking to subside and for falling objects to stabilize before evacuating. Be alert for secondary hazards following an earthquake such as fires, landslides, dam failures, or shortages of food and other resources.

• **High winds.** Boulder often has strong winds that can come up without warning. Please close your windows if you will be away from your office for even a short time.

• **Tornado.** Seek immediate shelter in an interior room or corridor on the lowest floor of the building. Avoid large open rooms, windows, doors, and outside walls.

**JILA SAFETY CONCERNS**

Not all JILAns work in labs, but there are still lab-related safety issues that affect all JILAns.

• **Transport of Chemicals.** Often chemicals must be transported within JILA. Chemicals should never be left unattended in non-laboratory areas. Open containers should not be transported in non-laboratory areas. Gas cylinders in transit should be capped and on a hand truck specifically designed for use with cylinders. Do not use an elevator with a dewar, but rather take the stairs or wait for the dewar to be removed.

• **Instrument Shops.** Do not enter the Shop without using the eye protection provided at the door. The work performed by the Instrument Shop creates many sharp, tiny metal fragments that can damage your eyes. Do not wear loose clothing that could get caught in machines as this can cause severe injury or death (think ties, loose hair, long pony tails, etc.) Do not attempt to operate machinery without appropriate training or if you are alone.

• **Electronics Shops.** This shop uses high voltage. Know what you are touching or ask the Electronics Staff. Don’t assume that an unplugged apparatus poses no risk.

• **Lasers.** Labs that have lasers will have a Laser Warning Light. Do not enter a lab with an activated laser warning light without appropriate eye protection. JILA uses various lasers – there is no one goggle that can protect your eyes from all JILA lasers. Don’t assume a laser isn’t active because you can’t see it. This isn’t Star Trek – the human eye can’t see most of our lasers even though they can inflict major damage to your eyes.

• **Evacuation Alarms.** Take all alarms seriously and evacuate quickly and calmly. JILA has dangerous chemicals, high voltage electrical appliances and other dangers.
• **Safety Stations.** There should always be clear and unobstructed access to safety showers, eyewash stations, IED devices and fire extinguishers.

• **Exits.** Corridors should be clear (an occasional item temporarily located may be fine). All exits and stairwells should be free from any items at all times. Exit lights should be lit.

• **Be AWARE and REPORT.** If something looks unsafe or out of place – report it to the JILA Safety Officer rather than assuming someone else will deal with the issue. Do your part by being aware of circumstances and reporting safety concerns.

Remember: The safety of all JILAns rests with each JILAn!

**WORKPLACE VIOLENCE**

Incidents of workplace violence have occurred at a number of locations in recent years, and CU is not immune to this possibility. While the odds are small, it is prudent for JILA students, staff, faculty and visitors to be prepared for such an incident here. Although there are no safety guarantees during such an event, the CU Police Department has developed the following recommendations to prepare for dealing with workplace violence:

**Be aware and be prepared**

• Have the mindset that workplace violence will happen at JILA. Universities are inherently open environments; they are difficult to secure.

• Know what resources are available for persons who appear to be in need of psychological help. Is there someone showing signs of becoming an “injustice collector?” Recommend counseling services or consider calling the police for guidance.

• Counseling assistance for CU students is available at Counseling and Psychological Services. For more information, visit [http://www.colorado.edu/sacs/counseling/](http://www.colorado.edu/sacs/counseling/)

• Active shooters may be suicidal. They have nothing to lose by killing.

• Active shooting incidents create chaos. Despite the confusion, react with a simple plan that maximizes potential for safety. There may be more than one “right” answer in your response, and you may have to switch gears at any time.

• Know you will act and survive.

**If an active shooting incident occurs near you, try to**

• **Get out.** Get away from the shooting. Go away to a place of safety. **Call 911,** provide the location of the shooting, and give a description of the shooters, if possible.

• **Hide out.** If you cannot get away from the shooting, find a room in which you can hide. Lock the door and turn off the lights. Spread out in the room, silence your cell phones, and inventory potential weapons.

• **Take out.** You and others may find yourselves being accosted by the shooter. If this happens, quickly develop a plan to attack the shooter. Use items at your disposal for improvised weapons, throw items to distract the shooter, and consider a plan to tackle the shooter, take away the weapon, and hold shooter until police arrive.

**Law Enforcement Response**

Boulder County law enforcement agencies, including the CU Police Department, are trained to respond to active shooting incidents. Be mindful that police response will come as rapidly as possible, but in the first few minutes of a violent incident, you may have to rely on your own actions to assure your safety. Feel free to contact CU Police at x2-8168 for more information.
SECURITY AT JILA
The JILA Building is unlocked during normal business hours. Lock your office door when you leave to protect your purse/wallet and small electronic items (laptops, cell phones, etc.) from theft. Consider locks for your laptop, desktop, or monitor. Make sure exterior doors are firmly latched after you enter/exit the building.

Don’t lend out your keys or BuffOne Card for JILA access. If someone needs access, go through the proper channels to obtain keys (Kim Monteleone; x2-7796; Room A235) and/or BuffOne Card access (Randall Holliness x2-4020; Room S175).

WORKPLACE INJURY AND REPORTING
University of Colorado Employees (includes student employees working while injured)
Employee’s Injury Report Form must always be filled out at JILA within 24 hours of the incident or, in the case of serious injury, no later than 48 hours after the incident whether or not the injured employee seeks or receives medical treatment.
1. Employee’s Injury Report Forms are available for completion online at
2. If completing the form online is not possible, forms can be obtained from Agnieszka Lynch in JILA A304 and Faxed to the Claims Manager at Risk Management at 303-860-5680. The white copy of the report should be mailed to Risk Management.
3. Injured UCB employees should notify their supervisor or a responsible colleague.

The provider for non-emergency medical care for on-the-job injuries for CU employees is:

Arbor Occupational Medicine: 1690 30th Street Boulder (303) 443-0496
1860 Industrial Circle, Suite D, Longmont (303) 682-2473
290 Nickel Street, Suite 200, Broomfield (303) 460-9339

Emergency Rooms – Call 911 or go to the emergency room. Make sure to identify yourself as a CU employee when visiting any medical facility. Follow-up with University Risk Management and Arbor the next business day.

Boulder Community Hospital - Broadway North Broadway & Balsam (303) 440-2273
Boulder Community Hospital -- Foothills Foothills Pkwy & Arapahoe (720) 854-7000

NIST Employees
NIST employees injured on the job must always contact the Department of Commerce (DoC) Health Unit (303) 497-3801 as soon as possible for instructions regarding follow-up care.
1. You must file Form CD 137 “Report of Accident/Illness” with the NIST Safety Office (MC 104.02, (303) 497-7389). The form is available from the NIST Safety Office or from Eyvon Petty in JILA Room A231.
2. An Incident Report form should also be filed with UCB Risk Management via FAX at (303) 492-1902.
3. Workers’ Compensation forms must be filed within 72 hours for injuries requiring medical care.
NIST employees with injuries requiring immediate attention (in- and out-of-hours) should go directly to an urgent care facility.

**Boulder Community Hospital - Broadway**
North Broadway & Balsam  
(303) 440-2273

**Boulder Community Hospital -- Foothills**
Foothills Pkwy & Arapahoe  
(720) 854-7000