

UCLA Chemistry & Biochemistry

Laboratory Safety Inspection Report

To: Patrick Harran, PhD

From: Michael Wheatley, Chemical Safety Officer



Date: November 5, 2008

A laboratory safety inspection was conducted in your laboratories by the Chemical Safety Officer, Michael Wheatley on Thursday, October 30, 2008 at the Molecular Science Building in rooms 4211, 4211LB, 4221, 4221A, 4221LB and 4426. Representatives of this lab group, Andrew Roberts, assisted during the inspection.

The safety inspection is conducted annually as required by Cal-OSHA regulation, Title 8, Section 5191. This inspection covered chemical storage and compatibility, chemical waste disposal and transport, emergency and safety information, safety equipment and supplies, hazard communication, fume hoods, fire safety, seismic safety, mechanical and electrical safety and lab practices. Below are the findings noted during the inspection.

Molecular Sciences, room 4211 (Lab)

- Finding:* The NFPA fire diamond/Occupancy placard is not posted on any of the doors.
- Recommendation:* This placard must indicate the highest chemical hazard within the lab as depicted on the fire diamond, special hazards, occupants contact and emergency information. Contact mail and information services at x54219 to have the placard updated and placed on the lab door.
- Finding:* Laboratory safety manual is not available in the lab group.
- Recommendation:* The Chemical Safety Officer will provide a brand-new most recently revised copy for the lab group.
- Finding:* Chemical spill cleanup material or spill kit is absent in the lab.
- Recommendation:* A chemical spill cleanup material or a kit is required for this laboratory. Chemical spill cleanup material or a kit may be purchased through vendors such as Fisher Safety, Lab Safety Supply or VWR.
- Finding:* There are several gas cylinders in the lab that are not properly restrained.
- Recommendation:* Per the UCLA Bruin Safety policy, gas cylinders must be restrained to a non-movable surface (wall) by a cylinder bracket and two chains (upper and lower). Loose or unsecured gas cylinders must be properly secured.
- Finding:* There are several gas cylinders that do not have valve protection (steel caps) while not in use.
- Recommendation:* When gas cylinders are not in use, the valve protection caps must be screwed completely onto the top part of the cylinder.
- Finding:* Accident documentation in the lab is absent.
- Recommendation:* A log of all accidents and injuries that occur in the lab must be documented and kept on file.
- Finding:* Personal protective equipment in the laboratories was not fully utilized by the laboratory personnel. Eye protection, nitrile gloves and lab coats were not worn by laboratory personnel.
- Recommendation:* Lab coats and nitrile gloves must be worn while conducting research and handling hazardous materials in the lab. Eye protection must be worn at all times in the laboratory.
- Finding:* Hazardous waste containers do not have the UCLA waste TAG affixed on outside.

Recommendation: All waste containers were properly labeled **in** writing on the outside. Additionally, a UCLA waste TAG **must** be generated and affixed to the outside container. Waste **cannot** be accumulated in the lab for more than 90 days. The following link is for waste TAG generation.
<http://otp.ucop.edu/>

Finding: There are more than 10 gallons worth of flammable solvents kept outside of the flammable storage cabinets.

Recommendation: The NFPA limit is 10 gallons of flammable liquids outside of flammable storage cabinets or less within **any** lab. When flammables are not being used, they must **be** stored in a flammable storage cabinet. Keeping a lower inventory **of** flammable chemicals will help reduce outside storage.

Finding: Laboratory has more than 60 gallons of flammable liquids on supply.

Recommendation: The NFPA limit is 60 gallons maximum of flammable solvents per lab. The laboratory inventory must be reduced to 60 gallons or less.

Finding: Small inventory of water reactive chemicals are kept in lab.

Recommendation: All Water reactive chemicals must be stored **in** a specific location designated for water reactives only. There is a storage cabinet in room 4426 designated for the storage of water reactive chemicals.

Finding: Several fume hoods do not have a sash stopper. These prevent the sash from going beyond an 18 inch opening.

Recommendation: Submit a facilities FSR request to have them added.
<http://www.fsr.ucla.edu/>

Finding: There is high overhead storage of heavy boxes located on the upper shelves of the lab.

Recommendation: For the concern of seismic activity, heavier **and** bulkier items must be placed on lower shelves.

Molecular Science, room 4211LB (Lab office)

No deficiencies noted

Molecular Science, room 4221 (Lab)

Finding: The NFPA fire diamond/Occupancy placard is not posted on any of the doors.

Recommendation: This placard must indicate the highest chemical hazard within the lab as depicted on the fire diamond, special hazards, occupants

contact and emergency information. Contact mail and information services at x54219 to have the placard updated and placed on the lab door.

Finding: The laboratory does not have a first aid kit available.
Recommendation: The laboratory must have a first aid kit. A first aid kit may be purchased through fisher scientific or lab safety supply.

Finding: Chemical spill cleanup material or spill kit is absent in the lab.
Recommendation: A chemical spill cleanup material or a kit is required for this laboratory. Chemical spill cleanup material or a kit may be purchased through vendors such as Fisher Safety, Lab Safety Supply or VWR.

Finding: Personal protective equipment in the laboratories was not fully utilized by the laboratory personnel. Eye protection, nitrile gloves and lab coats were not worn by laboratory personnel.
Recommendation: Lab coats and nitrile gloves must be worn while conducting research and handling hazardous materials in the lab. Eye protection must be worn at all times in the laboratory.

Finding: Hazardous waste containers do not have the UCLA waste TAG affixed on outside.
Recommendation: All waste containers were properly labeled in writing on the outside. Additionally, a UCLA waste TAG must be generated and affixed to the outside container. Waste cannot be accumulated in the lab for more than 90 days. The following link is for waste TAG generation.
<http://otp.ucop.edu/>

Finding: There is more than 10 gallons worth of flammable solvents kept outside of the flammable storage cabinets.
Recommendation: The NFPA limit is 10 gallons of flammable liquids outside of flammable storage cabinets or less within any lab. When flammables are not being used, they must be stored in a flammable storage cabinet. Keeping a lower inventory of flammable chemicals will help reduce outside storage.

Finding: Laboratory has more than 60 gallons of flammable liquids on supply.
Recommendation: The NFPA limit is 60 gallons maximum of flammable solvents per lab. The laboratory inventory must be reduced to 60 gallons or less.

Finding: Small inventory of water reactive chemicals are kept in lab.

Recommendation: All Water reactive chemicals must be stored in a specific location designated for water reactives only. There is a storage cabinet in room 4426 designated for the storage of water reactive chemicals.

Finding: The center fume hood on the north side of the lab has a non-functional alarm.

Recommendation: The fume hoods must have a functional audible alarm that activates when air flow goes below 100 FPM. An FSR to facilities shall be submitted to correct this.
<http://www.fsr.ucla.edu/>

Finding: There is high overhead storage of heavy boxes located on the upper shelves of the lab.

Recommendation: For the concern of seismic activity, heavier and bulkier items must be placed on lower shelves.

Molecular Science, room 4221A (Lab)

Finding: Chemical spill cleanup material or spill kit is absent in the lab.
Recommendation: A chemical spill cleanup material or a kit is required for this laboratory. Chemical spill cleanup material or a kit may be purchased through vendors such as Fisher Safety, Lab Safety Supply or VWR.

Finding: There are several gas cylinders in the lab that are not properly restrained.

Recommendation: Per the UCLA Bruin Safety policy, gas cylinders must be restrained to a non-movable surface (wall) by a cylinder bracket and two chains (upper and lower). Loose or unsecured gas cylinders must be properly secured.

Finding: There are several gas cylinders that do not have valve protection (steel caps) while not in use.

Recommendation: When gas cylinders are not in use, the valve protection caps must be screwed completely onto the top part of the cylinder.

Finding: There is excessive storage of chemicals on table tops and within the fume hood.

Recommendation: These chemicals must be segregated and stored in chemical storage shelves or cabinets according to their hazardous classification.

Finding: Glass bottles of chemicals are stored on the floor.

Recommendation: Glass bottles whether filled or empty, cannot be placed on the floor. Empty bottles can be disposed into the large glass waste

drum located in room 3120. Bottles with chemicals that are being used must be placed in secondary containment (i.e. nalgene tub).

Molecular Science, room 4221LB (Lab office)

Finding: There is high overhead storage of heavy boxes located on the upper shelves of the lab.
Recommendation: For the concern of seismic activity, heavier and bulkier items must be placed on lower shelves.

Molecular Science, room 4426 (Distillation lab)

Finding: There is more than 10 gallons worth of flammable solvents kept outside of the flammable storage cabinets.
Recommendation: The NFPA limit is 10 gallons of flammable liquids outside of flammable storage cabinets or less within any lab. When flammables are not being used, they must be stored in a flammable storage cabinet. Keeping a lower inventory of flammable chemicals will help reduce outside storage.

Finding: Laboratory has more than 60 gallons of flammable liquids on supply.
Recommendation: The NFPA limit is 60 gallons maximum of flammable solvents per lab. The laboratory inventory must be reduced to 60 gallons or less.

The findings noted above should be corrected within 30 days of the date of this report. Please make corrections by December 5, 2008 and notify the Chemical Safety Officer.

CC: Albert Courey, Chair of Chemistry & Biochemistry Department
Craig Merlic, Chair of Safety Committee
Bill Peck, Manager of Occupational Safety and Employee Health
Andrew Roberts, Graduate student