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# **Materials Sciences Division Safety Committee Meeting**

**March 20, 2013**

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# Opening Remarks

**Jeff Neaton**  
**Division Director**

**Nick Everson**  
**Deputy Director for Operations**

# Agenda

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- **MSD Safety Committee Membership and Introductions**
- **News from the Safety Advisory Committee**
- **Video Conferencing Safety Committee Meeting**
- **Pressure Safety Update**
- **Laser Safety Update**
- **Incidents**
- **Injuries**
- **Issues**

# MSD Safety Committee Membership & Liaisons



**Chair:**  
**Rick Kelly**

**Building/Operations Managers:**  
**Gilbert Torres (2, 62, 66, 67, 976), John Turner (72),**  
**Oliver Gessler (2, shared with Gil Torres)**  
**Kristin Estis (976 JCAP Operations Manager)**

**MSD Support:**  
**Erik Anderson, MSD rep on Lab Safety Advisory Committee (SAC)**  
**Phil Peabody, Electrical Repairs**  
**Ed Wong, MSD Shop**  
**James Wu, Materials Fabrication**  
**Kymba A'Hearn, EHS Admin**

**MSD EH&S Technicians:**  
**Paul Johnson, 53, 62, 64, 66, 72, 976**  
**Carleton Falzone, Foundry**

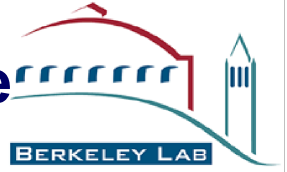
**EH&S Associates:**  
**Larry Mclouth, Liaison to MSD**  
**Kurt Ettinger, Health And Safety Rep**  
**Greta Toncheva, Laser Safety Officer**  
**Scott Robinson, Industrial Hygiene**

**DOE Site Office Observer: Julie Henderson Droatz**

Each LBNL-based research group in MSD, including each program in the Molecular Foundry, will designate a primary and backup representative to serve on the Safety Committee

Ager	Joel Ager
Bourret	Edith Bourret
CXRO	Weilun Chao
Dubon	Oscar Dubon
Dynes	Steve Wu
Fadley	Gunnar Karl Pálsson
Foundry User Program	David Bunzow
Foundry/Urban	Tracy Mattox
Foundry/Urban	Tev Kuykendal
Foundry/Zuckermann	Michael Connolly
Foundry/Cabrini	Bruce Harteneck
Foundry/Svec	Biwu Ma
Foundry/Neaton	David Prendergast
Foundry/Schuck	Paul Ashby
EMAT/Javey	Jeff Beeman
Javey B66	Rehan Kapadia
JCAP	Kristin Estis
Kaindl	Yiming Xu
Kaindl	He Wang
Lanzara	Ken Gottlieb
Milliron 62	Clayton Dahlman
Milliron 67	Amy Bergerud
NCEM	Doreen Ah Tye
NCEM	Marissa Mancuso
Orenstein	James Hinton
Ritchie	Elizabeth Zimmerman
Ritchie	Bernd Gludovatz
Salmeron	Xiaofeng Feng
Schoenlein	Yi Zhu
Somorjai	Chris Thompson
Tomsia	Gracie Lau
Zhang	Sui Yang
Zheng	Kaiyang Niu
Yaghi	Felipe Gandara
MSD Business Office	Kyle Davis
MSD Shop	Ed Wong
MSD Mat Fab Facility	James Wu

# Functions and Key Activities of the MSD Safety Committee



## Functions of safety committee and representatives

- Represent all research groups within MSD at LBNL
- Stimulate leadership and staff participation in safety program
- Advise Division management and EH&S on safety and health matters
- Perform essential monitoring, educational, investigative and evaluative tasks
- Serve as contact point for EH&S matters in each research group
- Serve as conduit for bringing EH&S information back to research groups

## Key Activities

- Recommend changes to existing safety rules or the development of new rules
- Recommend improvements in hazard identification and control measures
- Report and discuss unsafe conditions
- Review accidents, incidents and close calls in MSD
- Disseminate EH&S information at group or lab meetings
- Document inspections, investigations, meetings and other EH&S actions at the group level

# News from the Safety Advisory Committee

**Erik Anderson**



# **Video Conferencing Safety Committee Meeting**

**Joel Ager**

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# **Pressure Safety Update: Recognizing and Addressing Pressure Safety Concerns**

**Scott Robinson**



# Laser Safety Update

**Greta Toncheva, LSO**

# Issues

# Donated Equipment



MSD Safety Matters

November 14, 2012

## Procedure for Acquiring Donated Equipment

### Donated Equipment May Pose Unique Safety Concerns

On occasion, an organization will wish to donate a piece of new or previously used equipment to a research group in the Materials Sciences Division. It is important to ensure that the acquired tool is safe and can be installed in the manner expected. Used equipment may be older and not meet current safety standards, may have been modified in a way that is unsafe or may be contaminated with hazardous materials. Also, while the equipment may be free, the cost of transportation and installation need to be considered.

LBL's Office of Sponsored Projects and Industrial Partnerships manages a specific procedure for accepting donated equipment. An element of this process is an equipment safety review. In MSD, Sally Nasman is designated as the point of contact to initiate a donation—she will manage the process details and ensure that the equipment is properly reviewed. Please contact Sally ([sfnasman@lbl.gov](mailto:sfnasman@lbl.gov), 486-4714) and me early on if you are considering a proposed donation/Gift.



The actual equipment item cannot arrive at LBNL until after the Gift is accepted by the Director (or the University if the value is over \$100,000). Items must be delivered directly to the Shipping and Receiving Department and proceed through the same receipt and property procedures as other equipment received by LBNL."

NOTE: Equipment that is *purchased* as used must come with an "as new" warranty.

- Review your workplace for any donated equipment that may not have gone through the formal review and acceptance process
- Notify Paul or Carleton if you find anything like this

# De-Energize Equipment Before Exposing Conductors



MSD Safety Matters

November 8, 2012

## Use Caution When Opening Electrical Panels

### Always De-Energize Electrical Equipment Before Opening Panels

Much of the lab equipment used by MSD researchers operates at potentially dangerous voltage and current (>50 volts, >5 mA). In many cases, removing equipment enclosure panels will expose unprotected, high voltage conductors and pose a risk of shock, electrocution or arc-flash explosion. Prior to removing such panels, it is very important to completely de-energize the equipment. Simply turning the equipment off via a switch on the tool is not always safe and cannot be relied upon to protect you.

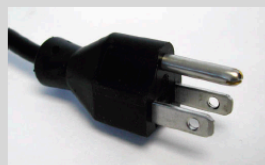
Frequently the equipment can be de-energized simply by unplugging it, a task that can be performed by anyone who has completed general electrical safety training at LBNL. As long as you can see the plug at all times and be sure that it is not plugged back in, most tools will be safe to work on.

Tools that are "hard wired" to the electrical supply, such as through a power disconnect, must be locked out and tagged out (LOTO) by a specially trained and qualified individual—very few researchers are qualified to perform LOTO. If you need to have such equipment de-energized, at LBNL you can contact Phil Peabody, ppeabody@lbl.gov or x6058, or an LBNL Facilities electrician. Paul Johnson x5810 or Carleton Falzone x7679 (Foundry) can facilitate work by the electricians at LBNL. On the UC Berkeley Campus contact the Office of Environmental Health and Safety for Guidance, 642-3073.

- The lack of a "High Voltage" label on a piece of equipment does not necessarily mean it is safe to remove a panel cover on the tool while it is energized. Older tools often lack this warning.
- Some equipment may contain stored electrical energy, such as large capacitors, making it unsafe to expose even after de-energizing—these capacitors must be shorted by a qualified person before the equipment is declared safe to work on.
- Finally, some equipment can be safely opened up when energized, if only low voltage conductors are exposed in the process, like a typical computer case. If you think this is the case for a piece of lab equipment at LBNL, contact Phil Peabody, x6058, to confirm it. On the UC Campus contact the Office of Environmental Health and Safety for assistance, 642-3073.



Special LOTO training is required to perform disconnects in electrical panels.



Plug - can be unplugged by anyone who has completed EHS0260.

- Always de-energize equipment before exposing high voltage conductors

# Emptying of LN Tanks Foundry

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## Incident

- **Equipment failure resulted in loss of house nitrogen to the Foundry (3<sup>rd</sup> time)**
- **Low pressure sensors detected the problem and switched the nitrogen purged gloveboxes used with pyrophoric materials to backup gas cylinders**
- **Local alarms were sounded, staff called Facilities**
- **Discovered that Facilities was not automatically notified, trying to remedy that now**

# Electrical Equipment Identification



- **MSD has inventoried most of its electrical equipment, putting it in the queue for safety inspection**
- **However, there are likely hundreds of un-inventoried pieces of equipment still in our labs or storage areas**
- **If the equipment is inventoried by the end of the fiscal year (Sept. 30, 2013), the institution will pay for the required inspection**
- **If the equipment is not in inventory by the end of the FY, your lab will be charged \$300 to inspect each piece of equipment**
- **New purchases of unapproved equipment will also incur a \$300 (and up) charge**

**Make sure that your equipment is fully inventoried!**

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# Thank you