

Safety Review Committee

March 21, 2008

10:00 AM – 12:00 PM

Minutes

Committee Member	Representing	Present
Banda, Michael J.	Computing Sciences Directorate	X
Bello, Madelyn	Human Resources Advisor	
Blair, Steven A.	Facilities Division	
Blodgett, Paul M.	Environment, Health and Safety Division	X
Cork, Carl	Physical Biosciences Division	X
Dubon, Oscar	Materials Sciences Division	
Francino Puget, Maria Pilar	Genomics Division	
Kadel, Richard W.	Physics Division	X
Leitner, Daniela	Nuclear Science Division	X
Li, Derun	Accelerator & Fusion Research Division	
Lucas, Donald	Environmental Energy Technologies Division	X
Lukens Jr., Wayne W.	Chemical Sciences Division	X
Martin, Michael C.	Advanced Light Source Division	X
Nakagawa, Seiji	Earth Sciences Division	X
Smith, Linda K.	Information Technology Division	X
Taylor, Scott E.	Life Sciences Division	X
Thomas, Patricia M.	Safety Review Committee Secretary	X
Twohey, Daniel	Directorate/Operations	X
Wong, Weyland	Engineering Division	X

Others Present: Richard DeBusk, Melanie Gravois, Howard Hatayama, Julie Henderson, Mike Kritscher, Neil Landau, Tony Linard, Mike Ruggieri, John Seabury, Janice Sexson, Bill Wells

Chairman's Comments – Don Lucas

Linda Smith requested an amendment to the February 15th minutes to reflect the concern about the level of effort for all ergonomics activities, not just Ergonomics Advocates. There are remaining questions about who is required to complete the new Remedy Interactive on-line training.

Bill Wells mentioned that some members are having problems accessing the PUB-3000 e-room. He asked that members experiencing access problems contact him right away so he can get them solved. Committee members requested that when several chapters of PUB-3000 are under consideration, the chapters and associated comments should be put in different folder.

Two Division Directors asked for more communication with their SRC Representatives. Don Lucas recommends that SRC members be included in Division Safety Committee meetings and line management meetings where safety is discussed.

PUB-3000, Chapter 25 – Bill Wells

The scope of the proposed chapter includes machine guarding in shops and laboratories as well as general shop safety requirements. There was a discussion on what the title of the chapter should be, to indicate to researchers in laboratories that the chapter applies to them. “Machine Safeguarding -- Shop and Lab Tool Safety” was suggested. There was a concern that researchers might not understand that lab equipment and robotics as well as “tools” are included. The author will continue to work on the chapter title.

The chapter is intended to apply to all machines (shop, lab, and facilities) and to non-LBNL people working on site. It covers guarding of points of operation, nip points, rotating parts, chips and sparks, hot surfaces, etc. Controls may include barrier guards and tripping devices. The guard should not cause an additional hazard. The current chapter covers shop safety. The new chapter needs to cover machine guarding for all machine tools, general shop safety, and use of power tools.

There was a question about whether the level of hazard a machine or piece of equipment is capable of causing by the amount of force it can exert is considered in the requirements. The OSHA regulations do not have a clear “de minimis” level; however, any machine capable of causing injury should be controlled. There was a question about whether engineering controls such as guards are always required, or whether administrative controls (such as procedures or training) are adequate controls for some types of laboratory equipment, such as microtomes, that are traditionally used without guarding and where guarding during use may not be possible. There was a question about equipment inside a glovebox. The glovebox itself might be considered one level of guarding. There were questions about research and development items being built for the first time, especially one-of-a-kind equipment intended for use only by highly trained individuals. Bill Wells suggested that the researchers contact the subject matter expert (Mike Wisherop) and get him involved during the design. Committee members suggested that LBNL look at best practices for guarding laboratory equipment at other labs. There were questions about how to guard centrifuges. Some centrifuges have interlocks that would be considered guards. Because there are many different sizes and types of centrifuges, there is no one answer for all of them. If a person is not exposed to a hazard, guarding is not required.

There were some concerns about the concept of documenting authorization by using a piece of paper per person per machine. It was suggested that the Job Hazard Analysis (JHA) could be used as the Line Management Authorization for power tools and laboratory equipment, and that equivalent documentation methods be accepted for machine shops. There was also a suggestion that the JHA could be used as a record of on-the-job training. Don Lucas commented that he has some ideas for authorization forms.

There were concerns that the scope of the chapter may be too broad and a discussion about whether there should be separate chapters for machine shops, laboratories, and facilities work. It was decided that the preamble describing the scope should be strengthened, and that there should be separate sections for shop and facilities work, and for laboratory equipment safety. There were requests for a separate appendix for laboratory equipment with examples of the types of equipment that are included. The general guarding concepts are the same for shops and labs, but the rules may need to be different.

EH&S is going to work on revisions to address the questions and comments received at this meeting. The revision may be ready for review at the April meeting.

PUB-3000, Chapter 33, Welding, Joining, and Thermal Cutting – John Seabury

In response to comments at the previous meeting, the following changes have been proposed:

- The concept of division policies for joining was deleted;
- High and medium risk joints are to be prepared by authorized Engineering or Facilities Division personnel;
- A new concept, “Weld Risk Assessor”, has been introduced. Risk evaluations can cover classes of joints determined to be low/negligible risk.

The Weld Risk Assessors would evaluate the consequences of failure of a joint. The Risk Assessor doesn't have to be an engineer. A qualification process needs to be developed. A person can assess his or her own welds.

An example of class evaluations was that it might be impractical to do a separate risk assessment every time there is a pump failure in the domestic water system, so there could be a class determination that soldering on the domestic water system is low risk. The documentation would be for the class evaluation. Commercial products would be exempted. There was a recommendation that blanket assessments for some classes of joints be done across LBNL, rather than by each division.

There were questions about how documentation of the risk evaluations would be maintained. The proposal does not require any specific form of documentation; however, records should be kept by each Risk Assessor. There were questions about whether records would be lost, especially when Risk Assessors retire or leave LBNL. There may be a duplication of efforts or inconsistencies if different Risk Assessors are evaluating the same types of joints separately. There are no plans for a central database at this time because LBNL does not have a Welding Program Manager.

There was a question about whether any other labs are doing their welding program management this way. Howard Hatayama responded that LBNL is trying to fill a gap in both welding and pressure safety management. There was a recommendation that EHS

Division look at what other multipurpose labs are doing. LBNL's assessment of our welding program was triggered by a Facility Contractors' Operating Group (FCOG) alert about an incident involving failure of a high-risk weld at another facility. EHS has tried to look at programs in other labs but needs more information. Some labs restrict who can do welding. Jefferson Lab had an outside expert assess their program. Argonne Lab has a weld engineer who has been trying to help other labs.

There are still a lot of unknowns about the approval documentation process. There was a comment that a Work Lead should be able to look at the chapter and understand how to obtain and document the required approvals for performing a welding, joining, or thermal cutting operation.

LBNL has two new classes available on line: spot welding safety and general welding safety.

Spot Award

The Safety Review Committee presented a Spot Award to John Seabury for his efforts in developing the Job Hazards Analysis process.

Traffic and Pedestrian Safety Subcommittee Report – Janice Sexson

The current members of the Traffic and Pedestrian Safety Subcommittee are Janice Sexson (Chair), Steve Blair (Traffic Engineer), Tamara Brown (Transportation Supervisor), Richard DeBusk (Safety Group Leader), Steve Greenberg (Bicycle Coalition), and Sandra Bell (Bus Supervisor). The new Site Security manager will be added. The Subcommittee could use more members, if anyone is interested. The Subcommittee maintains an "open door" policy at their meetings.

The most frequent traffic complaints at LBNL are parking violations, speeding, and vehicles (including bicycles) not stopping at stop signs. LBNL site security staff are not trained or authorized to enforce moving violations. UC Berkeley police have been invited to come up to LBNL more frequently. There was a question about whether we could establish a point system and revoke driving privileges on site for repeat speeders.

There are concerns about the lack of visibility at the Grizzly Gate exit. There is a steep slope that encourages bicycles and skateboards to speed down the hill. There is a curve uphill and a dip downhill that make it hard to see approaching traffic. LBNL proposed a warning light that would indicate when traffic is exiting the Lab. The property outside belongs to UC and they would have to agree to any changes. UC was concerned about the cost of providing power for a light. It was suggested that LBNL might provide a power hook-up from near the gate.

Pedestrian problems include:

- We have 24 miles of roadway without sidewalks. Where there are walkways and crosswalks, people don't always use them.

- There are some places where vehicles park across walkways, and some places where roadways are narrow and it is hard to see pedestrians walking along the side. The Bldg. 75 –76 area is a particular concern because there will be more people moving into offices in this area and there is insufficient parking, so there will be more pedestrians.
- The path from Bldg. 2 to the cafeteria, by the Bldg. 54 bus stop, is being redesigned because buses are having close encounters with pedestrians. Funding is being requested for the improvements.
- A bus stop near the firehouse was moved across the street. There is no place for people to stand safely while waiting at the bus stop.
- Flashing LED lights were installed at the crosswalk by the Bldg. 65 bus stop, but many pedestrians do not use the crosswalk or the lights. A “Today at Berkeley Lab” article encouraged people to use the new safety lights.
- Signs were placed in the middle of some crosswalks to encourage vehicles to stop for pedestrians. Large busses and trucks are having trouble getting around the signs.

There are sometimes problems with encounters between wildlife (turkeys and deer) and vehicles, bikes, or pedestrians.

Cars sometimes pass busses at the bus stops.

A “Share the Road” safety awareness event was held during the Runaround and safety-related prizes were raffled off.

Dr. Chu appointed a traffic safety task force to lead a comprehensive assessment of traffic and pedestrian problems on site. Sandy Merola is the leader of the task force. They are working with EHS Division and the Traffic and Pedestrian Safety Subcommittee. The role of the Subcommittee needs to be strengthened.

Current funding levels of \$200K/year to address all safety CATS items is not sufficient to address all the traffic safety issues. Some people become discouraged from entering concerns into CATS because they think nothing will happen. Another problem is that the Issues Management program defines risk levels in CATS by investigation and reporting requirement categories, which may not always correspond to potential life safety risks. There are some reporting requirements under 10 CFR 851 for vehicle operation violations.

While there are many problems remaining to be addressed, it is important to remember that the Traffic and Pedestrian Safety Subcommittee has successfully addressed many small issues that have been brought to their attention.

The meeting was adjourned at 11:50 AM

Respectfully submitted, Patricia M. Thomas, SRC Secretary