

**Safety Advisory Committee**  
September 18, 2009  
10:00 AM – 12:00 PM

**Minutes**

<b>Committee Member</b>	<b>Representing</b>	<b>Present</b>
Anderson, Erik	Materials Sciences Division	<b>X</b>
Banda, Michael J.	Computing Sciences Directorate	<b>X</b>
Bello, Madelyn	Human Resources Advisor	<b>X</b>
Blodgett, Paul M.	Environment, Health and Safety Division	<b>X</b>
Christensen, John N.	Earth Sciences Division	<b>X</b>
Floyd, Jim	Safety Advisory Committee Chair	<b>X</b>
Fujikawa, Brian	Nuclear Science Division	<b>X</b>
Ji, Qing	Accelerator & Fusion Research Division	
Kostecki, Robert	Environmental Energy Technologies Division	
Lowden, Rosemary	Information Technology Division	<b>X</b>
Lukens Jr., Wayne W.	Chemical Sciences Division	<b>X</b>
Madaras, Ron	Physics Division	<b>X</b>
Martin, Michael C.	Advanced Light Source Division	<b>X</b>
Petzold, Christopher J.	Physical Biosciences Division	
Pollard, Martin	Genomics Division	<b>X</b>
Taylor, Scott E.	Life Sciences Division	<b>X</b>
Thomas, Patricia M.	Safety Review Committee Secretary	<b>X</b>
Twohey, Daniel	Directorate/Operations	
Wong, Weyland	Engineering Division	<b>X</b>

**Others Present:** John Chernowski, Joe Dionne, Mike Kritscher, Peter Lichty, Don Lucas, Scott Robinson, Bill Wells, Mike Wisherop

**Chairman's Comments – Jim Floyd**

The minutes of the July meeting were approved.

John Christensen was introduced as the new representative from Earth Sciences Division. Scott Robinson was introduced as the new Self-Assessment program manager in the Office of Contract Assurance.

The electrical Activity Hazard Document (AHD) pilot project is progressing and receiving comments.

Anita Gursahani is leading a team that will be benchmarking Job Hazards Analysis (JHA) processes at other Labs. There is also a need to establish a SAC subcommittee to work on the current JHA to meet short-term needs. Because of the timing of the DOE Contract

Performance Measures, this group was convened in August and is focused only on 'life support' needs of that system.

### **Environmental Health and Safety (EHS) News – Don Lucas**

- **Access Control Pilot** – Paul Alivisatos issued a new policy requiring current General Employee Radiation Training (GERT) for access to any location requiring a badge swipe, effective October 1. There is no change to the timing of badge readers or entry during normal business hours. LBNL needs to develop a plan by the end of September for controlling access to radiation Controlled Areas. New software is being pilot tested. Earth Sciences Division is considering requiring completion of all required training before issuing badges. In the future, this might be expanded to other Divisions.

Currently, GERT is required on all Subcontractor Job Hazards Analyses. This makes no sense at the Joint Genome Institute, because there are no Controlled Areas. EHS will look into this.

There was a question about whether card access can be verified before a person arrives at LBNL. More communication of the policy will be needed. There need to be procedures for allowing emergency access. Sometimes cards don't work because they are damaged or demagnetized. The cards are inactive for people who are inactive in the personnel database (HRIS). Call Blackberry Gate for emergency access. Card key systems may fail in an open or closed mode when the server or electrical power is down.

There are questions about whether access policy decisions should be made on a risk-based or blanket approach. There will be more information about how the system is working by the next Safety Advisory Committee (SAC) meeting. The decision was made to issue the GERT access policy now because entry into Controlled Areas without GERT is a violation of DOE requirements.

About 390 people (5%) do not have GERT. Some only work overseas, or are retired and don't come to LBNL. People who have opted out of the JHA are included because there is no way to tell whether people have a badge if they are in the HRIS system. Some Divisions are cancelling the badges of people who are non-compliant.

Security systems at off-site buildings are being studied.

- **Nanomaterials Safety** – Some carbon nanotubes may be classified as suspect carcinogens. Peter Lichty, Larry McLouth, and Rick Kelly are working on safety policies for nanoparticles. In January 2010, the current DOE Order will expire. They are looking at how nanoparticles should be handled to prevent future problems. They are considering whether all engineered nanomaterials should be

handled as potential carcinogens. Environmental Energy Technologies Division (EETD) is conducting a pilot study of actual exposure levels.

Scott Taylor nominated nanotech safety as a candidate for consideration under CC1 (regulations management) of the Health, Safety and Security audit (HSS) Corrective Action Plan (CAP). There is no institutional group formally overseeing nanomaterials, and new developments in safety information are not getting out to the researchers. There is some overlap in the carcinogen and nanomaterial rules. Nanomaterials are different from chemicals because of the lack of data and experience, and different effects in the human body. The subject matter expertise is in Industrial Hygiene. Information is being shared with the Division Directors and SAC. EHS will take the action item to get together internally and formulate a problem statement for SAC to evaluate.

- **Pyrophorics** – Larry McLouth has formed a user group for people working with pyrophoric substances. Wayne Lukens is in the user group. There will be changes to the Chemical Hygiene and Safety Plan. The scope of this issue is small enough that it should not require full SAC evaluation.

### **Electrical Safety Activity Hazard Documents (AHDs) – Mike Wisherop**

The electrical AHD pilot program is in progress. 1 AHD has been completed, and several more are in review or started. There are two sets of activities that are included, research in laboratories and technicians in Facilities or Engineering. PUB-3000 does not mention an equivalency option. Facilities would like to use a Task-Based JHA, but they are not “formal authorizations”. Facilities uses the Maximo database, which has different levels of authorization. They are discussing how Keith Gershon would be involved in the process.

There are questions about who qualifies workers. The Line Management is not always knowledgeable about electrical safety. EHS Subject Matter Experts and electrical technician supervisors are assisting with checking workers qualifications. The AHD database does not have a mechanism for catching new people being added to AHDs to ensure they have been qualified. If a group AHD is created for all the electrical technicians matrixed to a division, there are questions about who is the supervisor and who should sign the AHD.

The Energized Electrical Work Permit has exceptions for testing, troubleshooting, and LOTO verification. These are the activities that would be covered by AHDs. The Line Managers should bring in a Subject Matter Expert (SME) if they are not comfortable with signing the authorization. The qualification process could be assigned a course number, similar to the laser SMEs observation of alignment, or the Radiological Work Authorization-specific training provided by Radiation Safety. Engineering has created a blanket AHD template that can be used for work below the arc flash hazard level. See AHD 3508.

The Principal Investigator and Work Lead functions are not the same for all types of work. At the Joint Genome Institute, they have 2 electrical technicians from Lawrence

Livermore. The supervisory systems for matrixed people can be addressed through Memoranda of Understanding.

There are concerns about whether we have sufficient electrical safety SME resources. There are already competing priorities. Getting about 50 AHDs completed could be a full-time job for at least a year or two. A second electrical safety person has been hired and it taking over some of the routine duties.

A contract engineer is doing arc flash calculations. He is a Professional Engineer and is hard to get. EHS and Facilities are conducting a pilot. Arc flash calculations performed by ALS are not being accepted by Facilities. The contract engineer will be extended to help ALS. There was a question about whether an LBNL engineer can be qualified to do arc flash calculations. Facilities would have to approve.

The next step is to make changes to PUB-3000, and work on the AHDs. Specific changes will be proposed next month.

### **JHAs – Jim Floyd**

The contract performance measure requires 95% of LBNL personnel to have active and accurate Job Hazard Analyses. “Accurate” means having text in the individual and work group job descriptions that is related to the tasks, hazards, and controls.

92% of personnel have active JHAs. Keeping up with expirations is a challenge. Don Lucas commented that there is no 30-day grace period for completing JHAs for new hires. The JHA must be completed before work is started. This change has been incorporated in Chapter 24 of PUB-3000, but other chapters may not be consistent. There is a question about whether completing the JHA should be required before a badge is issued. There could be computers available at the badging site, or Divisions can give out badges.

John Seabury is working on batch downloads of group work descriptions without changing the approval status of the JHAs. The supervisor and employee will get an email if an upload is done. 2/3 of the non-compliances relate to downloading work group descriptions.

We can expect the current JHA system to remain in place for at least the next 1 ½ - 2 years, with only essential changes. There is a subcommittee including Jim Floyd, Weyland Wong, and some Division Safety Coordinators looking at possible improvements to the current system.

### **Cryogenics – Joe Dionne**

A draft Cryogenics chapter is being prepared. Argon, helium, liquid nitrogen, and dry ice are the cryogenics being considered. Lara Jain is conducting user interviews to develop a separate Cryogenics safety course. There will be a beta test. In October, there will be

monitoring of boil-off from dewars, to help validate a risk assessment process. A draft chapter will be available for comment after discussion at the SAC meeting next month. There was a question about changes to the pressure safety chapter. The two chapters will be linked.

Wayne Lukens suggested that the new policy should be included in the CC1 pilot. There are questions about how the new chapter will affect subcontractors and vendors. The “policy” regarding transportation of cryogenics in elevators has not been formally adopted, but it is being included in Subcontractor JHAs. Not all elevators in buildings with cryogenics have the required chains.

### **Acid Waste – Don Lucas**

The nitric acid waste policy is being incorporated into the Chemical Hygiene and Safety Plan and Waste Generator Guidelines, with a link to PUB-3000. Notification was sent to all owners of nitric acid listed in the Chemical Management System, and everyone who has generated nitric acid waste within the last year. EHS is working on a treatment method for piranha waste. There were questions about whether the information can be sent to people placing new orders for nitric acid, and new chemical owners in the CMS. The requirements are being included in the Chemical Hygiene and Hazardous Waste Generator training.

The meeting was adjourned at 11:40 AM  
Respectfully submitted, Patricia M. Thomas, SAC Secretary