Safety Advisory Committee
October 7, 2011
1:30 – 3:30 PM

Minutes

Committee Member	Representing	Present
Anderson, Erik	Materials Sciences Division	X
Bello, Madelyn	Human Resources Advisor	
Blodgett, Paul M.	Environment, Health and Safety Division	X
Cademartori, Helen	Information Technology Division	X
Carithers, William	Physics Division	X
Christensen, John N.	Earth Sciences Division	X
Earnest, Thomas N.	Physical Biosciences Division	
Floyd, Jim	Safety Advisory Committee Chair	X
Franaszek, Stephen	Genomics Division	X
Fujikawa, Brian	Nuclear Science Division	X
Ji, Qing	Accelerator & Fusion Research Division	
Lukens Jr., Wayne W.	Chemical Sciences Division	X
Lunden, Melissa	Environmental Energy Technologies Division	
Martin, Michael C.	Advanced Light Source Division	X
More, Anil V.	Office of the CFO Advisor	
Taylor, Scott E.	Life Sciences Division	X
Tucker, Eugene	Facilities Division	X
Thomas, Patricia M.	Safety Advisory Committee Secretary	X
Walter, Howard	Computing Sciences Directorate	X
Wong, Weyland	Engineering Division	X

Others Present: James Bashore, John Chernowski, Richard DeBusk, Brian DeFrancisci, Joe Dionne, Douglas Fleming, Mary Gross, Julie Henderson, David Kestell, Michael Kritscher, Peter Lichty, Bob Mueller, Andreas Schmid, Bill Wells, Marty White

Follow-up to Annual Discussion with Laboratory Director – Jim Floyd

- **ESH Peer Review**

The Environmental, Safety, and Health (ESH) Peer Review process is going well and the Lab Director seemed to be pleased with it.

- **Accident/Incident Investigations**

The Lab Director asked SAC to work on improving accident/incident investigations. To determine what efforts would be useful, we need to look at what the Lab has been doing, and decide how we would fit into the process.

John Chernowski has been implementing corrective actions regarding investigations from the Health, Safety, and Security (HSS) team's second visit. A Lean Team looked at the accident /incident investigation process during July and August. The team had broad representation from several divisions, the Office of Contractor Assurance (OCA), and the Department of Energy Berkeley Site Office (BSO). A report was written in August and an implementation team has been formed. The Lean Team focused on incidents with formal causal analysis. Some of the improvements are being piloted and the feedback has been good so far. The investigation process will change.

There was a question about how Human Performance Improvement (HPI) will be folded into the process. HPI is only being used in the investigation. About 20 people have been trained in HPI, including the causal analysts. Other Labs have dedicated HPI people who could teach or help us.

The timeliness of the investigations was a major focus of the Lean Team effort. Timeliness is a concern for the Lab Director and BSO. Allocation of resources is part of the problem. An investigation team was trying to look at 3 events within 30 days. An hour per investigator per week is not enough. The time commitment should be about 15 hours/week for about 4 weeks, or about 40 hours per investigator. Investigation teams need 3 – 4 people, including the affected organization, Environmental Health and Safety Division (EHS), and OCA. There is a 30-day limit to complete an investigation. There was a question about whether the investigators get enough practice to stay qualified. LBNL has 3 – 4 people who are really experienced enough to lead an investigation.

After the overview of current efforts by John Chernowski, a general discussion of how SAC might assist followed. Wayne Lukens asked whether the Lab Director wants SAC to do an assessment of the investigation process or the results. There was a discussion that SAC could do an effectiveness review to determine:

- Did safety improve as a result of the investigation/corrective actions? Or are we continuing to have the same problems?
- Is the investigation process working?
- Were there effective corrective actions and were they implemented? Did the investigation team work with the affective Division to develop the corrective actions?
- Are the findings/Lessons Learned being used by other Divisions?

Mike Martin commented that Division ownership is critical to implementation. It is important that a trusted peer participated in the development of the corrective actions. Corrective actions need ownership, follow-up, and oversight.

One area of general agreement was that SAC could look at the end product of the investigation, because the Lean Team concentrated on the investigation process. SAC wants to see how the results are communicated. John Chernowski commented that the Division Directors own the reports, and it is their decision whether they want to share the reports. SAC members need to be able to follow the logic of how corrective actions were developed, and see the connection between the root cause and the event. There should be quality assurance throughout the process. SAC could look at whether the corrective actions were at the right level – institutional or divisional. It could be useful for a subset of SAC to attend the investigations team's briefing to the Division Director to provide an independent review. SAC members understand how things work in labs. The subset could come back to the larger SAC group with Lessons Learned. They can look at whether the corrective actions prevented problems.

The Division that owns the investigation is expected to communicate the results. The Division or investigation team could give presentations to SAC. They should be able to defend their selection of Corrective Actions. We can look at how to incorporate SAC into the communication of Lessons Learned.

Jim Floyd plans to put together a subcommittee and come back next month with a proposal on how we can evaluate Lessons Learned communication, the effectiveness of the investigation process, and the effectiveness of Corrective Actions. SAC would like to hear more from the Lean Team and OCA about what the new policy and process will be.

- **Policy Advisory Role**

Jim Floyd had further discussion with Paul Alivisatos regarding SAC's role in advising EHS on policies. SAC was directed to pick a few policy areas that are particularly important. Paul Alivisatos will help to ensure alignment between EHS and SAC. SAC needs to think about 3 important areas that should be improved. Suggestions from SAC members included:

- Issues management; and
- Customer Service versus compliance – SAC could look at policies that seem to go beyond regulatory requirements, particularly EHS approvals of construction work. This would be in line with Paul Alivisatos' emphasis on being "safe and efficient".
- Delivery of EHS support to off-site locations.

PPE Policy – Marty White

A team is being assembled to look at LBNL's Personal Protective Equipment (PPE) policy. Marty White will be chairing the subcommittee. Some members have been selected, and volunteers are needed, particularly from electrical engineering. Mike Wisherop will be working on the PUB-3000 chapter update.

Working Alone Policy –Bill Wells

The draft policy was published in PUB-3000. A "Today at Berkeley Lab" article was posted on September 20 and there have been over 2000 hits. There were concerns regarding the need to monitor experiments on nights and weekends, and clarification that hazards can be mitigated. A Town Hall meeting was held on September 26. About 25-30 people attended. Concerns were raised about work in remote or inaccessible locations, students and visitors working alone, and whether the person who performs emergency notification or first aid could be liable if things go wrong.

In response to the Town Hall comments, a list of Frequently Asked Questions (FAQs) will be included as a supporting document. It will clarify excluded risks – work routinely performed by the public, personal medical events. Lab legal counsel is confirming that "good Samaritan" protection is applicable to the second person, if they are not grossly negligent.

The anticipated schedule deadlines are for Divisions to develop implementing policies by February 29, 2012, and for working alone restrictions to be included in work authorizations by September 30, 2012.

Bob Mueller asked how the new policy would affect the electrical worker 2-person rule. Self-rescue is not possible for exposures over 50 Volts / 5 milliamps. The new policy is not intended to change existing policies for specific types of work. It is intended to make people ask questions about risk and think about whether a person could self-rescue. There was a question about what qualifications are required for the second person. The primary role of the second person is to activate emergency services, so they must be able to perform that function. A "Life Alert" system could be an effective means of control in some situations. Each Division or location will determine how the policy applies to off-site work. If there is a risk of toxic gas release, the second person should be one who will not be incapacitated by the release. The restrictions would be described in the Activity Hazards Document.

Bill Wells proposed sending the policy, with the clarifications, back to Paul Alivisatos for approval. SAC members concurred.

Toxic Gas – Joe Dionne

Changes to PUB-3000, Chapter 13, have been proposed. Larry McLouth is the Subject Matter Expert. Responsibilities for managing toxic gases have been clarified. There is a graded approach for controlling exposure to emissions from roof stacks, which includes exposure analysis, restricted flow, and/or administrative procedures to restrict access. There is a provision to allow analysis of fluorine mixtures for excimer gasses.

Wayne Lukens commented on the requirement that gas cylinders "in use" in the current policy should be replaced with "in use or connected for use." In other words, a cylinder should always be either capped or connected to a regulator. The requirement that gas cylinders be capped when they are not in use comes from construction industry standards.

A consensus of SAC members recommended that EHS move forward on adopting the proposed changes.

Peer Review – Jim Floyd

The ESH Peer Review for Earth Sciences Division has been completed. The review focused on new staff orientation and the Division Director's implementation of his safety program. The review focused on lab work. They did not look at fieldwork or office ergonomics. The Peer Review team included Erik Anderson, Vincent Battaglia, Joe Dionne, Roger Falcone, Jim Floyd, and Scott Robinson. The team conducted interviews of supervisors and new staff. The Lines of Inquiry were derived from previous Peer Reviews and McCallum/Turner.

In general, the review found that Earth Sciences Division has a very stable population with good interaction. Most of the new staff is in modeling, a lower risk activity. On-the-job training is regarded as important and most new staff members complete all their required training when they first arrive. It was recommended that an alternative training schedule be evaluated, because people may not be retaining the details of the training when it is all given at one time. The Division Director has weekly staff meetings and is up-to-date on the status of his safety program. Safety initiatives tend to flow down, and it was recommended that staff be more involved in identifying safety issues. The flow down of information in lab groups tends to be better than in modeling groups because the lab groups interact more.

Jim Floyd plans to ask the Division Directors of the Divisions that have been through the Peer Review to respond to SAC. The Division Directors are learning from each other. SAC will be asking Division Directors to participate in future Peer Reviews.

The meeting was adjourned at 3:00 PM
Respectfully submitted, Patricia M. Thomas, SAC Secretary