

**Safety Review Committee**  
 February 15, 2008  
 10:00 AM – 12:00 PM

**Minutes**

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

**Others Present:** Melanie Gravois, Howard Hatayama, Ira Janowitz, Mike Kritscher, Peter Lichty, Florence Mou, Mike Ruggieri, John Seabury, Bill Wells, Marty White

**PUB-3000, Chapter 17, Ergonomics – Ira Janowitz**

Ira Janowitz responded to previous comments regarding the proposed changes to the Ergonomics chapter.

The new Remedy Interactive on-line self-assessment has been assigned course number EHS059, to distinguish it from the ergonomics class, EHS060. EHS0259 will be required for people who work at a computer for > 4 hours per day. EHS060 will be optional (except where required by the person's division). Ira agrees with Dr. Chu that brief, targeted training is the most effective. Additional courses may be developed for specific needs.

Committee member had additional questions and comments about several sections:

- A correction is needed on Table B, Moderate Frequency Lifting. The knuckle-to-chest weight limit for 0 – 12” should be changed from 59 pounds to 50 pounds, to conform with LBNL standards.
- The use of the terms “JHQ” and “JHA” varies. The terms should be used consistently and conform with the new requirements.
- Section 17.3.2 should clarify the responsibilities of Supervisors and Work Leads. The responsibilities of the Work Leads should be as delegated by the supervisors.
- Section 17.3.4 does not describe the responsibilities of the ergonomists. Ira Janowitz responded that their responsibilities are as delegated by the Ergonomics Program Manager. Linda Smith asked that the responsibilities of the Safety Coordinator be described. The Safety Coordinator should oversee the work of the Ergo Advocates (except where both roles are filled by the same person).
- Section 17.4 .1 mentions a comfort survey. This is an optional tool that has been used by some divisions. People who score “green” on Remedy Interactive may be monitored by comfort surveys or other means to determine whether problems are starting to develop.
- Section 17.4.3 should include the Ergo Advocate as one of the people who may initiate requests for ergonomics evaluations. There was a discussion about whether Ergo Advocates should receive automatic e-mail reminders about the status of evaluations. It was decided that this isn’t necessary because the Ergo Advocates have access to a status chart. There was a comment that it is generally more effective to send the reminder e-mails to the Safety Coordinators than to the Division Directors.
- Section 17.4.4 title should be changed to indicate that it describes ergonomics support services for people who telecommute or work remotely. Human Resources establishes the actual telecommuting agreements.

There was a general concern about the level of effort that may be required for ergonomics activities. Ergonomics support is usually an additional part-time duty for people with other full-time jobs. This could be a real burden for some divisions anticipating multiple personnel moves. The Office of the Chief Financial Officer (CFO) is developing a “move safely” video that discusses packing, moving, and setting up a new workstation location. This video will be available for other divisions.

The increase in ergonomics effort is part of several increases in safety effort expectations for divisions, including electrical equipment inspections, subcontractor/ vendor safety work permits and monitoring, and Job Hazards Analysis (JHA). The cumulative demand and cost should be examined.

There were questions about the status of Remedy Interactive. The software is available, but it does not automatically give credit for training completion through the Training database. Environment, Health and Safety Division (EHS) has some ergonomic concerns about the impact of manually entering all the training completions. It will take another month or two to modify the systems to provide automatic credit. The Job Hazards Questionnaire (JHQ) has been updated to require EHS059 rather than EHS060. Ira

Janowitz asked everyone to wait for a decision from EHS before asking people to start completing EHS059.

Chapter 17, with the changes discussed, was approved by a vote of all members present (including one write-in vote from an absent member) with no objections.

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

An Energy Facilities Contractor Operating Group (EFCOG) alert and an internal investigation highlighted the need to develop a safety program for welding and related activities. There was a DOE review after the EFCOG alert that found that LBNL had no formal welding safety program or responsible persons defined. There is a Corrective Action requiring that a program be developed. Facilities and Engineering Divisions have developed robust procedures for non-spot welding in their own divisions. A team was put together and a draft policy was presented in November 2007. It is anticipated that the new requirements will become effective June 30, 2008.

Welding is part of a continuum of methods for creating heat-joined assemblies, including soldering, brazing, and glassblowing. This approach is consistent with the trade perception. The type of process to be used must be designed for the anticipated loading of the joint (pressure, temperature, etc.). The process includes preparing the joint, putting it together, and inspecting it.

The chapter proposes a graded approach for high, medium, and low risk joints. The risk is based on the consequences of a joint failure. There would be a more involved process for permitting high consequence joints. Divisions would develop policies and procedures (P&P), including quality control measures. The P&P would be reviewed by the Mechanical Safety Subcommittee (MSS). The MSS would ensure the policies and procedures have all the necessary components. The Division must address the MSS's comments. The MSS can prevent a division from welding if the P&P are deficient. The P&P would be signed by the Division Director. The work would be approved through a line management authorization, as described in the Division's Integrated Safety Management Plan. There was a question about whether the authorized people should be listed in the P&P. There is an overlap with the JHA, which will describe who is authorized to perform work. The P&P should be reviewed periodically.

There was a request that references to the new work authorization process be incorporated into Chapter 6 when it is re-written this spring.

There were questions about what is meant by "certified", "qualified", and "authorized":

- Certification is an American Welding Society program. To become certified, a person must use a qualified procedure, and demonstrate competence in performing the procedure. Facilities Division does not maintain a staff of certified welders. Work requiring a certified welder is contracted.
- Who is "qualified" and how they become qualified would be described in each Division's P&P.

- “Authorized” means having permission from Division management to do the work. Negligible risk work would be covered in the JHA.

There were questions about Divisions’ responsibility to ensure the safety of vendors and subcontractors doing welding. If a vendor plans to do welding, the Division may consult with the Mechanical Safety Subcommittee. There will be a checklist for non-construction welding. The vendor will be required to complete a JHA and safety checklist. Divisions are encouraged to use the Engineering weld shop in Building 77. They also do “house calls” for equipment that can’t be transported to Bldg. 77. Subcontractors can work on their own equipment as part of a service contract. This work should be covered by the subcontract. The subcontractor would be required to work in accordance with the terms of the subcontract.

In response to comments, John Seabury is rephrasing the toxicity information and providing links to more information. The Personal Protective Equipment (PPE) section is being moved from the appendix to the main body of the chapter. Dr. Peter Lichty commented that a Medical Surveillance Program is required and the program will specify the types of metals that may be used by the worker.

Wayne Lukens requested a special section for glassblowing and suggested appropriate hazard controls. John Seabury is incorporating these comments.

There were questions about how risk is defined. Who evaluates whether the risk is negligible? Divisions would make this determination through the JHA process. There was a discussion of whether the risk level should be based on the process of creating the joint or the consequences of a joint failure. The consensus was that it should be a two-step evaluation, considering both factors.

The consensus of the committee was that the chapter is not ready for a vote at this time. There was a concern that a person can’t look at the draft chapter and get clear guidance to answer the question, “Can I do this?” DOE auditors are coming back March 13 – 14 to check our progress.

When the draft policy was reviewed with the Division Directors, they said that only Engineering and Facilities need to do non-spot welding. They were not aware that the program would cover brazing, soldering, glass blowing, etc. There was general agreement that the expanded scope is appropriate; however, there will be a need for other divisions to be able to perform these activities.

There were further questions about how to develop P&P and how to determine risk levels. It was asked whether Divisions could reference Engineering or Facilities Division P&P rather than developing their own. The answer was no, each division that wants to perform the covered activities must develop their own P&P. For most safety issues, Divisions rely on an EHS subject matter expert to help review the safety procedures for proposed work. LBNL does not have welding safety expertise in EHS Division. The

MSS has the expertise, but they may not be able to respond quickly to requests. The review process for work not covered by a JHA needs to be defined.

The Committee asked John Seabury to post revisions to the draft chapter on the PUB-3000 e-room. We may consider approving the changes through an electronic vote.

### **Job Hazards Analysis Status – John Seabury**

The software for developing JHAs is almost ready. John Seabury will be contacting Division Safety Coordinators to set up appointments to train them and the work group leaders. The estimate is that there will be about 273 group JHAs. The project is still on target for completion, but a little behind where we would like to be. The JHA template has not been loaded onto the software yet.

### **Subcontractor and Vendor Safety – Mike Ruggieri**

The focus is on developing requirements for assuring the safety of non-construction subcontractors and vendors. A draft policy and requirements have been written. The next step will be to do a pilot program. The Lessons Learned from the pilot program will be incorporated into the draft Chapter 31. The proposed program has four basic requirements:

1. A JHA will be required for subcontractors performing hands-on work;
2. There will be a pre-job meeting between representatives of the Division requesting the work and the subcontractor/vendor personnel performing the work;
3. Work authorizations will be required; and
4. Divisions will perform graded oversight of the subcontractor / vendor's work activities.

Guidance will be provided in the chapter appendices. EHS will provide support and tools to Divisions.

The pilot program will take place for eight weeks (March – April 2008). It will involve Life Sciences Division, Materials Sciences Division, EHS, and Procurement. Draft forms and an orientation booklet will be posted on the web. The pilot program has seven steps:

1. Subcontractor services are requested by a Division;
2. Safety expectations are communicated to the subcontractor;
3. A subcontractor Job Hazard Analysis (S-JHA) form is completed by the subcontractor and submitted to LBNL;
4. The requesting Division reviews the S-JHA to determine the hazard level;
5. Pre-job meeting is held and work is authorized;
6. The requesting Division provides oversight of subcontractor performance;
7. The effectiveness of the program is assessed.

There are three types of work that must be phased into the program: new work / contract, ongoing contracts, and off-contract work. Each work authorization will be for a specific person or persons to perform a defined work scope for a certain time period.

High hazard work is defined as work that would require a formal work authorization under PUB-3000, Chapter 6 or Chapter 8. High-hazard work will require a work permit. Daily checks of the work performance will be recorded on the work permit. Work permits should be posted or available at the location where the work is being performed.

It is estimated that there will be about 50 – 100 subcontractor/vendor jobs per week at LBNL, with about 90% being low-hazard. That would mean about 250 – 500 high-hazard jobs at LBNL per year. EHS will spot-check compliance. Divisions will be expected to record their observations of significant non-compliance by subcontractors and vendors in the CATS database.

The S-JHA will be the safety plan for most work.

The Divisions have the flexibility to define who will be responsible to perform the activities required of the requesting Division.

For warranty work performed off-contract, Divisions need to tell subcontractors where to get the JHA form and orientation information. For existing agreements, review the JHA to determine the hazard level and provide appropriate oversight for the work.

For work involving more than one division, EHS could define a Lead Division and ask them to get feedback from the other divisions. There was a comment that each customer division would need to provide oversight for the work done in their space.

There was a question about which Division is responsible for work procured by matrixed personnel for their projects in other divisions. This needs to be defined.

It is expected that a draft Chapter 31 will be ready for SRC review and approval in May 2008. Implementation would take place during May – September 2008.

There were questions about who will be responsible for work at LBNL requested by UC campus employees. This would be the responsibility of the host division at LBNL. There are remaining questions about responsibilities for servicing LBNL equipment on the campus. EHS is looking at the issue.

There was a question about whether Security personnel at the gate could assist in screening vendors coming on site.

No formal vote was taken, but there were no objections expressed to proceeding with the pilot program as discussed.

The meeting was adjourned at 12:10 PM

Respectfully submitted, Patricia M. Thomas, SRC Secretary