

## **Meeting 10/25/06 SRC Subcommittee on Laser Safety**

Present:

Ken Barat (EH&S), Larry McLouth (EH&S), Paul Blodgett (EH&S), Pat Harris (EH&S consultant), Eddie Ciprazo (UCB), Richard Kadel (PHNRD), Xianglei Mao (EETD), Don Lucas (SRC, EETD), Robert Schoenlein (MSD), Neil Landau (BSO), Russ Kelly (DOE Oak Ridge Site Office).

Agenda:

- (1) Update on SRC action regarding the Laser Safety Committee policy recommendation for LBNL personnel using lasers on campus (Don Lucas).
- (2) Proposed changes for Pub3000 - Ch 3 (Health Services) regarding laser eye exams
- (3) update on implementation of LSO visits to laser labs (and documentation) – replacement for EH&S-287
- (4) update on re-writing of Pub 300 Laser Safety Chapter – laser safety committee input
- (5) development of laser safety protocols – outline of critical areas
  - example: ANSI Standard vs. CFR-851
  - key control requirement
  - emergency shut-off requirement
  - unattended laser use
- (6) update on BSO action items (Larry)

### **Minutes**

(1). Don Lucas gave an update of the recent SRC Meeting at which the recommendations from the Laser Safety Committee regarding LBNL policy for laser users working on campus was discussed. The SRC now has the authority to make/change safety policy at LBNL. Previously the SRC was an advisory body. The SRC expressed concerns about potential conflict between the Laser Safety Committee recommendation and the existing EH&S MOU between LBNL and UCB. The SRC has recommended that the SRC Chair and the Laser Safety Committee Chair discuss this issue directly with LBNL senior management.

The issue of how many LBNL employees are using lasers on campus was raised (again). At present, there is no clear documentation of this. However, recommendations were made to update the JHQ to specifically identify who is using lasers on campus. Larry McLouth will check to make sure that all LBNL JHQs have been updated – particularly since some divisions use different JHQs.

Subsequent to the meeting, Larry reports that we have 3 JHQs at LBNL: Lab-wide, LS Div, and PGF (Walnut Ck). All 3 have the simplified questions that we changed in the March/April time frame. Moreover EHS 287 (Laser Lab Observation) and EHS 289 (Laser Awareness) have been removed as required courses since we now have alternate ways of presenting this info.

(2) Dr. Peter Lichty (LBNL Health Services) is proposing changes to the laser eye exam policy in Pub 3000 (Ch 3). Ken Barat explained that the purpose of the exam is to establish suitable vision for working with lasers, and to establish a baseline in the case of future accidents. He also mentioned that ANSI is moving to make eye exams 'recommended' as opposed to 'required' for laser users. Ken sought input from the committee, specifically regarding the following issues:

- (a) grace period – the committee felt that a grace period was necessary given that LBNL eye exams are available only once per week, and that many labs (e.g. ALS) have visiting researchers who come only for short stays. Present policy is that anyone with incomplete laser safety training (including eye exam) can work with lasers only under the direct supervision of a fully qualified laser user.
- (b) acceptance of exams from other institutions – the committee did not express a strong opinion on this, except that if there is no suitable grace period, then there must be a mechanism for laser users to get exams outside LBNL (e.g. prior to their arrival, for visiting researchers)

Following the Laser Safety Meeting, Ken drafted the following policy for Pub 3000, Ch 3. This was circulated to the Laser Safety Committee members, and Ken will forward this to Dr. Lichty as the Laser Safety Committee recommendation for inclusion in the revised Pub 3000, Ch 3.

All Class 3b and Class 4 laser users who will be at LBNL for more than one month must complete a laser eye examination. The elements of the laser eye examination are per the ANSI Z136.1 Standard for the Safe Use of Lasers. Prior to receiving eye examination, laser users can only work under the direct supervision of an authorized LBNL laser user. The examination must be administered by an optometrist, or ophthalmologist. Laser eye examinations will be performed as follow-up to suspected eye exposure, or at the request of the LSO or user. It is strongly recommended that the laser user receive an additional laser eye examination on termination of employment.

(3) Ken presented an updated spreadsheet for documenting LSO visits to laser labs. Ken's observations are now accessible via a spreadsheet on a public EH&S Server. Eventually, the observations will be uploaded into the AHD database. The database has the capability to accept files that are viewable only by authorized personnel. The spreadsheet includes:

- Date
- Lab (room) visited
- Visit Type (e.g. AHD Audit, Observational, AHD follow up etc.)
- Comments, observations, problems identified
- User Action Item
- LSO Action Item
- User(s) Observed

It was suggested that the database be sortable by laser user and by AHD, so that the LSO will know which users or AHD's have been recently visited (and when) and which users have yet to be visited. If an audit is done, the user will be left with an audit form.

(4) The Laser Safety chapter of Pub 3000 is in the process of being re-written. Ken is collecting comments and input from a small group of laser users. He also expressed interest in updating the AHD template. As changes are developed, they will be presented to the Laser Safety Committee for comment.

(5) There was a brief discussion of the laser safety protocols that are being developed. These are needed to clarify LBNL policy in areas where ANSI is ambiguous, or conflicts with other safety requirements (e.g. fire, or electrical), or where LBNL policy represents a particular interpretation of the ANSI standard. The committee suggested that these protocols be referenced in Pub 3000. Don Lucas pointed out that these changes to Pub 3000 will require SRC approval. Larry McLouth indicated that he would like to see these first reviewed internally, then with the Laser Safety Committee, then submitted to the SRC for approval, and finally incorporated into Pub 3000.

(6) Larry McLouth reported that the LBNL/BSO action items are being validated. This is being done by Russ Kelly, the DOE subject matter expert from the Oak Ridge site office.