

Meeting 5/22/08 SRC Subcommittee on Laser Safety

Present: Joel Ager (MSD), Eddie Ciprazo (UCB), Bob Schoenlein (MSD), Ken Barat (EH&S), Neil Landau (BSO), Xianglei Mao, (EETD), Don Lucas (EH&S), Musa Ahmed (CSD)

Agenda

- (1) laser safety for laser vendors
- (2) status of laser safety protocols
- (3) update on DOE audit
- (4) OJT documentation (paper vs. electronic)

Minutes

(1) Ken Barat led a discussion of laser safety training for laser vendors. Vendors are required to follow all LBNL safety procedures, and the issue is how to insure that vendors are properly trained and verify that they comply with the necessary safety requirements. This is particularly an issue for repairs of instruments with 'embedded' Class 3b or Class 4 lasers, since such instruments normally do not have an AHD, or other documented safety procedures for operation. The following scenarios and suggested approaches were discussed:

- (a) for laser systems that do have an AHD, there should be some written procedure for handling on-site laser repair – to insure that the vendor adheres to all the safety requirements in the AHD. Generally, a visit with the LSO should be arranged prior to the scheduled repair. In some cases, it may be advantageous to add a laser technician to the AHD (with appropriate documentation of OJT, and operational limitation). Other possibilities include direct (line-of-sight) supervision of the repair technician by an authorized laser user.
- (b) For instruments with embedded Class 3b or Class 4 lasers (that do not require an AHD for normal operation), it was suggested that an abbreviated AHD be prepared to cover maintenance/repair by outside vendors. This is particularly relevant for facilities that may have a large number of such instruments that are repaired on a regular basis.
- (c) Another option for instruments with embedded laser hazards is to have the LSO prepare a Temporary Work Authorization. This document stipulates the conditions under which potentially hazardous work may be performed. The limitations of this approach are: (i) the document must be prepared (and customized) on a case-by-case basis, (ii) the TWA is valid for only two weeks (although it may be renewed), and (iii) the LSO and/or the responsible operator for the instrument must insure that the procedures spelled out in the TWA are actually followed.

It was pointed out by several members of the committee that while laser maintenance and repair by outside vendors is an important laser safety issue that needs to be addressed – there are associated potential *electrical* safety issues that are equally important (e.g. technicians repairing laser power supplies). Moreover, this issue should not detract from the paramount issues of ensuring and continually improving the laser safety training for the large number of frequent laser users at LBNL (including outside users coming to the ALS and other user facilities, and LBNL employees working on campus or other off-site locations).

- (2) Laser Safety Protocols are being reviewed by Russ Kelly at Oak Ridge Site Office
LBNL needs to formal request approval of protocols from BSO
- (3) The DOE laser safety audit has been postponed to 2009. Instead, there will be a evaluation of ISM implementation at LBNL in July.
- (4) It was strongly encouraged that EH&S arrange to update the electronic AHD system so that OJT can be recorded electronically. This may be an issue for the upcoming audit.
- (5) Vendors from LaserVision will be at LBNL on June 12 to meet with laser users.