

3/25/11 Minutes for the SAC Subcommittee on Laser Safety

Present: Ken Barat (EH&S), Joel Ager (MSD), Marc Hertlein (ALS), Xianglei Mao (EETD), Andrew Peterson (LSD), Jerry Bucher (CSD), Ben Sandmann (PBD), James Basore (EH&S), David Littlejohn (EETD)

Agenda:

- (1) Incident Response Plan status
- (2) Unauthorized entry into laser lab
- (3) Hands-on laser training class
- (4) Laser reference guide and optics hazard
- (5) Update on laser safety conferences
- (6) Laser inventory system
- (7) Other

Minutes

1. Ken reports that the Incident Response Plan has been reviewed by SAC and Berkeley Site Office and has been approved. It has been incorporated into Pub 3000. See Section 16.5.4.1 for the official version. The U.C. Berkeley campus is looking into adopting a similar plan for their laser facilities.
2. There was an unauthorized entry by a Facilities worker into a laser lab in Building 2. Facilities put together an investigation team, which included Ken Barat, to assess the issue. An internal report has been prepared and an ORPS report will be going out shortly. Several corrective actions were recommended.
3. Development of a hands-on laser training class is going forward. A room in Building 17 will be renovated to accommodate the equipment and a 4 ft x 6 ft optical table has been obtained, along with some optical equipment. Ken is seeking donations of additional equipment from laser and optics companies. The class will be recommended to new laser users.
4. Ken handed out a nearly-final draft of the On-The-Job Laser Reference Guide. This started out as an optics hazard chart, and it has evolved into a book on setting up and working in a laser lab. It will be available for distribution in the beginning of April. It will be revised and updated over time.
5. Ken recently attended the International Laser Safety Conference and made several presentations, which were well received. At the conference, it was reported that high power handheld lasers can be purchased by the public on the internet, and aiming lasers at aircraft is an increasing problem. He arranged for Bruce Struck, an expert on bio effects of ultra-short (femtosecond) laser pulses, to give a talk at LBNL.
6. Ken has been looking into the development of software that can provide the OD (optical density) for laser safety eyewear from the laser output data in the laser inventory database. He is in contact with an outside vendor may be able to develop a cost-effective system.
7. The lab has hired an interlock engineer from SLAC. He will be available to design, repair, and improve interlock systems for laser labs.

Ken will have three summer interns this summer to assist with laser safety and inventory issues.

There was discussion about low-cost viewers for near infrared lasers. Some users have found iPhones to be effective viewers for laser beams out to about 1.1 μm .