



Laser Safety Protocol # 013

TO: Laser users

FROM: Laser Safety Program

SUBJECT: Labeling of Laser Protective Windows and Barriers

VERSION DATE: MAY 2008

Goal

Documentation of the LBNL standard protocol for labeling of Laser Protective Windows and Barriers

Protocol

The Laser Safety Program at LBNL will attempt to label laser protective barriers and windows (in particular those that unauthorized staff may come in contact with). The protective level of un-labeled windows and barriers will be addressed within specific AHDs. Barriers that are used for cleanliness only and do not provide laser beam protection will be labeled to indicate that.

Applicable Standard and Policies

ANSI Z136.1 / CDRH Specification

The ANSI Z136.1 standard for the safe use of lasers is the Laser Safety Program's general guidance document.

Section 4.6.5.2 Labeling of Laser Protective Windows states all laser protective windows shall be labeled with the optical density and wavelengths for which protection is afforded.

Section 4.6.5.4 Labeling of Laser Protective Barriers. All laser protective barriers shall be labeled with the barriers

threshold limit and exposure time for which the limit applies and the beam exposure condition under which protection is afforded.

The CDRH is the Food and Drug Administration's body tasked with developing laser-light-product performance safety standards for lasers sold in the United States.

LBNL PUB-3000, Chapter 16 (Lasers), also guides laser use at LBNL.

Rationale

When deciding on the applicability of ANSI controls, the LBNL LSO considers its safety implications and engineering feasibility.

Laser protective barriers used at LBNL fall into three varieties. Metal, plastic (acrylic) and foam board. Users select barriers based on experience with these barriers and the intensity of laser radiation they use. This experience is based on actual material testing or previous experience from past users of the laser systems. Experimental and environmental factors such as cleanliness also go into window /barrier selection. With the exception of the Advanced Light Source, access to laser labs is controlled. Any laser protective

window or barrier that is open to contact by the general population shall be label to indicate its protective properties. Laser protective and barriers located within a Class 3B or Class 4 control area will be either labeled or referenced in the laser use spaces AHD.

Contact Information

In case of questions or comments, contact Ken Barat, Laser Safety Officer (LSO), at ext. 2544, kbarat@lbl.gov.