



## Laser Safety Protocol # 002

**TO:** Laser users  
**FROM:** Laser Safety Program  
**SUBJECT:** Laser Room Access Interlock Protocol  
**VERSION DATE:** MAY 2008

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### Goal

To ensure that laser-room access systems (interlocks) are functioning properly. This will require a testing of the functionality of the interlock system—illuminated sign, shutters, power-supply connection, bypass switch, etc.—on a six-month frequency, with proper documentation.

### Rationale

For Class-4 laser entryway controls, the ANSI Z136.1 standard states that the Class-4 controlled area shall incorporate one of the following alternatives:

- Non-defeatable area or entryway safety controls
- Defeatable area or entryway safety controls
- Procedural area or entryway safety controls

Which control is applicable to the laser-use area is left to the LSO to determine, based on input from the user and a hazard evaluation. There is no default condition; each case is evaluated on its own unique circumstances and laser use.

When a room access interlock system is in place or chosen, **confirmation** of its

functionality is required at installation and every six months afterwards.

### Verification of Interlock Performance

The LSO is responsible for ensuring the use of laser controls. Therefore the LSO will verify that a laser-room interlock check has been performed. The principal investigator or designee will perform the check and see that it is properly documented. The check shall be performed following a written interlock procedure. This procedure can be user-generated or developed by Facilities.

### Documentation

Performance of the interlock check needs to be documented. Equally important is a notation of any findings (i.e., light out, sticking shutter) that must be followed by a notation on the action taken (i.e., replaced bulb, contacted electrical shop).

The user can declare a period of non-laser operation to avoid periodic requirements from becoming past due as a result of non-operation. Prior to start up, the interlock check shall be performed, and LSO notified.

One interlock check can be tied to an

**Comment [TND1]:** Do you mean "confirmation"?

AHD renewal. Documentation can be on a user-generated form, a log-style record, or an EH&S-suggested form.

**Contact Information**

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