

Standard Operating Procedures For Class 3b and 4 Laser Users

I. Scope

- A. This document provides safety guidance for laser operators and spectators within the laser controlled area.
- B. Procedures reflected herein are in accordance with applicable regulation parameters impacting the operation of the laser laboratory.

II. Responsibilities

- A. _____ is responsible for the safety of this laboratory operation in conformance with this Standard Operating Procedure (SOP). In the absence of _____, _____ shall assume these responsibilities.
- B. UCSD Laser Safety Committee and Environment, Health and Safety are the authorizing bodies and are responsible for providing safety services and guidance.

III. Scope of work

- A. _____

IV. Laser Hazards

- A. The laser hazards associated with this laboratory have been analyzed, and the controls specified for these hazards will reduce the risk to employees and the environment to acceptable levels.
 - 1. Laser hazards

- a. The characteristics of the lasers used with this SOP are described below:

Make and Model	Type	Class	Wavelength (nm)	Mode (CW or Pulsed)	Power (mW or mJ)

- b. The use of laser safety eyewear with an **Optical Density (OD)** of _____ at _____ nm is mandatory whenever the beam is unenclosed, **(to be completed by EH&S)**.

B. Laser controlled area

1. All entries into the laser controlled area must be posted with the proper warning sign.
2. An emergency procedure sign must be posted inside the laser controlled area along with this laser safety plan/standard operating procedures near the laser or laser system.
3. Only trained personnel listed on the Laser Use Authorization in the laboratory and maintenance personnel from vendors may energize the laser or laser system.
4. The laser beam shall be contained in the immediate area using non-reflective and non-flammable beam blocks and/or partitions.
5. It is the discretion of the laser operator to allow or deny entry into the laser area while the laser is energized.
6. When the laser is energized, all entrances into the laser controlled area must be secured to prevent unauthorized access. If there is a "laser on" indicator it must be used.
7. If there are windows in the laser area, they must be blocked with opaque material that is non-reflective and non-flammable.
8. If possible position the laser so it is not at standing or sitting eye level.

V. Training and Required Reading

- A. Individuals who use this equipment are required to take the UCSD EH&S Laser Safety Class and shall be trained to recognize the intrinsic hazards, are aware of basic safety information that relates to their job duties, and know the safe operating requirement for this activity.
- B. All operating personnel shall read and understand this standard operating procedure (SOP) and all applicable references stated in this SOP. Signatures of all authorized operators are required at the end of this SOP.

VI. Emergency Procedures

- A. In an event of a laser emergency refer to the Laser Emergency Procedure posted in the laser controlled area.
- B. In an event of fire or other emergency, evacuate and notify the UCSD police department by dialing 534-HELP on any campus phone.

VII. Review and Approval

Principal Investigator

Date

Laser Safety Officer

Date

