

Laser Standard Operating Procedure (SOP)

LSO Approval Date

PI Name:

Building and Room:

These procedures apply to all activities in the laser lab where there is potential access to a class 3B or 4 laser beam.

1. Laser Description: *(List lasers covered by this SOP, delete unneeded table rows)*

Class 3B or 4	Model	Wavelength (nm)	Type (ex. Nd:YAG)	*Eyewear OD Required

*To be completed by LSO

2. Eyewear

All persons inside the lab when the laser is energized are required to wear LSO approved laser safety eyewear with an optical density (listed above) for the laser that is operating. Laser operators and observers are required to avoid direct observation of the output of laser or optical fibers without approved laser safety eyewear.

3. Initial laboratory preparation *(list safety items to be completed before starting laser (e.g., turning on warning light, verification of users in lab only, curtains drawn, etc.))*

4. Starting up laser *(provide a brief outline on how the laser is turned on)*

5. **Aligning laser** *(provide a description of who will be aligning the laser and how (e.g., see Appendix A of the Laser Safety Manual))*

6. **Operational Procedure** *(provide a brief description of how the laser will be used)*

7. **Shutting down laser** *(provide a brief outline on how the laser is shut-off)*

8. Emergency Procedures

Follow the procedure on the Laser Safety Emergency Poster. All laser accidents/injuries must be reported to Radiation Safety.

1. Notify the PI (name) _____ at (phone) _____
2. Notify Radiation Safety at **859-323-6308** and radsafe@uky.edu, or after hours, contact through the UKPD at **859-257-8573**
 - Jason Johnson (LSO)
 - Christian Lusby (Radiation Safety Technician)

9. Required Training:

Operators/Observers: UKY Laser Safety training is required for all operators and observers in the lab during laser use. Laser Safety Initial (and/or Refresher) for Users (online) is required prior to working in the lab with observed hands-on training for those operating the laser.

Non-Operators: Those that use the lab but will not be in the lab during operation of the laser will only require the lab-based checklist (non-user portion) prior to working in the lab.

10. PRIOR Authorization by the LSO (jason.johnson@uky.edu) **is required for:**

- A. Modification of any laser or laser system that affects laser safety
- B. Initial operation of new laser sources
- C. Changes to operation or safety procedures

11. Operators and Observers

The following personnel are authorized to operate or observe class 3B and 4 lasers in this laboratory. The individuals named below will follow all applicable laser safety requirements as outlined in laser safety training. All operators and observers are responsible for ensuring safe laser use and the safety of all those present in the lab.

Name (printed)	Signature	Date