

The University of Texas at Austin Laser Safety Program
UTLaser3

Laser Safety Standard Operating Procedure (SOP)

(To be available on the EH&S Radiation Safety Webpage)

Department/Laboratory: _____

Date: _____

Procedure #: _____

Revision Number: _____

Author: _____

- **This procedure shall be read and signed annually by all persons who use lasers listed in the SOP.**
- **This procedure shall be reviewed every two years by the Permittee/Laboratory LSS to ensure it reflects the most current conditions.**

1. **LASER SAFETY CONTACTS**

- Laboratory Laser Safety Supervisor (LSS) _____
Phone number _____
- University Laser Safety Officer _____
Phone number (512) 471-2042 (Office) 24 hour on call (512) 875-0911
- Maintenance/Repair _____
Phone number _____
- Medical Emergencies 1. **911**
 2. Notify the Laboratory LSS and University LSO of all laser-related injuries and near misses as soon as possible.

2. **LASER DESCRIPTION**

Attach latest Laser Inventory (available from Laser Safety Supervisor). Update as required.

3. **LASER SAFETY PROGRAM**

See the UT-Austin Laser Safety Program Manual for:

- Responsibilities of the laser operator/user, Permittee, and Laser Safety Supervisor
- Laser Permit Requirements
- SOP, Training Requirements, and Interlocks
- Eyewear Requirements, including annual eyewear inspections
- Sign and Labeling Requirements
- Non-radiation Hazards

Maintain a copy of the Texas Regulations for Control of Laser Radiation Hazards (§289.301).

4. HAZARDS & CONTROLS

HAZARDS AND CONTROLS		
Check if applicable	HAZARD	CONTROL(S)
<input type="checkbox"/>	High Voltage	
<input type="checkbox"/>	Capacitors	
<input type="checkbox"/>	Unenclosed Beam Access to Beam	
<input type="checkbox"/>	Fumes/Vapors	
<input type="checkbox"/>	Ultraviolet Radiation or Blue Light	
<input type="checkbox"/>	Compressed Gases	
<input type="checkbox"/>	Hazardous Chemicals/Waste	
<input type="checkbox"/>	Housekeeping	
<input type="checkbox"/>	Reflective Material in Beam Path	
<input type="checkbox"/>	Fire	
<input type="checkbox"/>	Laser at eye level of person sitting or standing	
<input type="checkbox"/>	Infrared Lasers	
<input type="checkbox"/>	Correct Eyewear	

COMMENTS:

ADDITIONAL CONTROLS		
Check if applicable	CONTROL	COMMENTS
<input type="checkbox"/>	Entryway (door) Interlocks or Controls	
<input type="checkbox"/>	Laser Enclosure Interlocks	
<input type="checkbox"/>	Laser Housing Interlocks	
<input type="checkbox"/>	Panic Button Emergency Stop	
<input type="checkbox"/>	Beam Stops	Infrared Laser must terminate in fire-resistant material and the absorber must be inspected at least quarterly ¹
<input type="checkbox"/>	Master Switch (operated by key or computer code)	
<input type="checkbox"/>	Laser Secured to Base	
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

COMMENTS:

¹ Required by 25TAC§289.301(s)(1)

5. PERSONAL PROTECTIVE EQUIPMENT

A. Eyewear

LASER EYEWEAR

For this Laser...			...Wear this Eyewear		
Acquisition date	Type	Wavelength (nm)	Wavelength Attenuated (nm)	Optical Density (OD)	Remarks
(example) Aug 99	CO ₂	10,600	10,600	At least 3.5	Glendale-white frames

Identify each set of laser protective eyewear with a unique designation (name or number).

The following check shall be done annually. Discard unfit eyewear. See section 6.5.

Item	Comments	Date/Initial
Adequate pairs of eyewear for all needs.		
Eyewear specific to wavelength		
OD appropriate for full range of power; alignment to power ops		
Fit snugly		
Labeled for wavelength and OD		
Free of damage excessive scratches		

What (item):

And is available from (where)

which must be worn (when):

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. OPERATING PROCEDURES

- A. Initial preparation of lab environment for normal operation (key position, warning light on, interlock activated, identification of personnel, other)

- B. Target area preparation

- C. Operation procedures are as follows:

- D. Shutdown procedures for this laser are as follows:

- E. Special procedures (alignment, safety tests, interlock bypass, emergency, etc.)

