

University of Nevada, Las Vegas
Laser Safety Program
Standard Operating Procedure

Principle Investigator	Date
Department/Division	Building and Room Number
Laser Manufacturer / Model	Laser Serial Number

1. Laser Safety Contacts

University Laser Safety Officer: _____ Phone: _____

Laser Vendor / Maintenance: _____ Phone: _____

Medical Emergency: _____ Phone: _____

2. Laser Description

Attach latest laser system description. This includes the laser type, intended application (brief description), wavelength, output beam diameter and beam divergence. For continuous wave (CW) lasers include the average power; for pulsed lasers include the energy per pulse, pulse duration, and repetition rate.

3. Laser Safety Protocols

Briefly describe each of the following as they pertain to safety pre-requisites

- a) Responsibilities of the laser operator(s)
- b) Training requirements specific to the laser system in question
- c) Verification of laser registration with Radiation Safety Office
- d) Sign and labeling requirements
- e) Personnel Protective Equipment requirements

4. Operating Procedures

Briefly describe each of the following as they pertain to normal laser operation:

- a) Initial preparation of laboratory environment for normal operation (key location, status indicators, interlock activation, posting of warning signs, sufficient and appropriate PPE available, etc.)
- b) Target area preparation
- c) Special Procedures (beam alignment, maintenance, etc.)

- d) Operational Settings (power, Q-switch mode, pulse rate, etc.)
- e) Shutdown procedures

5. Control Measures

Laser/Laser System Control Measures		
Check if Applicable	Control	Comments
	Entryway (door) Interlocks or Controls	
	Laser Enclosure Interlocks	
	Emergency Stop/Panic Button	
	Master Switch (operated by key or code)	
	Laser Secured to Base	
	Beam Stops/Beam Attenuators	
	Protective Barriers	
	Warning Signs	
	Reference to Equipment Manual	
	Sufficient Eyewear Available	
	Appropriate Eyewear Available	
	Other	

Additional Comments:

Hazards and Control Measures		
Check if Applicable	Hazard	Control Measures Employed
	Unenclosed beam/Access to direct or scattered radiation	
	Laser at eye level of person sitting or standing	
	Ultraviolet Radiation	
	Reflective Material in Beam Path	
	Hazardous Materials/Waste (dyes, solvents, etc.)	
	Fumes/Vapors	
	Electrical	
	Capacitors	
	Compressed Gases	
	Fire	
	Housekeeping	
	Tripping Hazards	

Additional Comments:

6. Personnel Protective Equipment

a) Eyewear

LASER EYEWEAR					
For This Laser....			Wear This Eyewear...		
Serial No.	Type	Wavelength(s) (nm)	Wavelength(s) attenuated (nm)	Optical Density (OD)	Notes
Example 1	Nd:YAG	1064, 532	1064, 532	5+	UVEX / Orange

b) Other Protective Equipment Required within Nominal Hazard Zone

ITEM	Location	Usage Condition(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

7 Operator Review

I have read this and understood this Standard Operating Procedure, and agree to adhere to the protocols outlined above.

Name (print)	Signature	Date
_____	_____	_____
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The Principal Investigator is required to keep each laser SOP on file in the laboratory.
A copy of this SOP must be transmitted to the Radiation Safety Office.

FAX number: (702) 895-4690
Office: Campus Services Buildings, Room 119D
Campus Mail: Laser Safety Officer
Risk Management and Safety, Radiation Safety Office

Issued: