

Laser Safety Checklist

This checklist is intended to assist departments in the following: 1) To identify laser-related hazards; 2) To determine appropriate hazard controls to prevent laser-related illness/injury; and 3) To assess compliance based on control requirements. Note: Though departments are encouraged to implement preventative measures to protect employees from laser injury, the following survey primarily applies to Class 3B and Class 4 lasers.

Part 1: Basic Information (This form should be filled out by Inspector)	
Principal Investigator (PI):	Lab Manager (if not PI):
Laser Location (Bldg. & Room):	Department:
Part 2: Laser Class, Product & Technical Information	
Laser Class <input type="checkbox"/> Class 1 <input type="checkbox"/> Class 1M <input type="checkbox"/> Class 2 <input type="checkbox"/> Class 2M <input type="checkbox"/> Class 3R <input type="checkbox"/> Class 3B <input type="checkbox"/> Class 4	
Laser Product Identification Manufacturer: Model/Part #: Serial #:	Notes:
Technical Specifications Output Power Range <u>or</u> Maximum Output Power (W): _____	
Wavelength (nm): _____ Type of Radiation: _____	
Is laser pulsed? <input type="checkbox"/> Yes <input type="checkbox"/> No; If yes, complete values below:	
Energy Per Pulse (J): _____ Pulse Width (s): _____ Pulse Repetition (Hz): _____	
Can laser be used in multiple modes (continuous wave [CW], pulsed)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Is laser Q-switched? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Other: <input type="checkbox"/> Picometer <input type="checkbox"/> Femtometer <input type="checkbox"/> N/A	
Laser Use: <input type="checkbox"/> Laboratory/Studio <input type="checkbox"/> Medical <input type="checkbox"/> Office/Classroom <input type="checkbox"/> Other:	
Lasing Material Used (Check one, then specify type [e.g. CO ₂ , Nd-YAG]): <input type="checkbox"/> Gas <input type="checkbox"/> Dye/Solvent (Liquid) <input type="checkbox"/> Solid-State <input type="checkbox"/> Semiconductor <input type="checkbox"/> Fiber Optic Specify:	
Power Source & Process	
Power Requirements Power (kW): _____ Voltage & Phase (V, Ph): _____ Amperage (A): _____ Specify Source:	

Energy Input/Pump (Photon Source): Chemical Reaction Electrical Discharge/Current
 Optical (Lamp, Other Laser) Specify:

Part 3: Hazard Controls

Engineering Controls (Barriers, Process Isolation, Cooling, Mechanization)

Laser Equipment

Laser Equipment Grounded? Yes No

Protective Housing? Yes No

Complete Beam Enclosure? Yes No

Safety Shutters Installed? Yes No

Other Barriers Used (Beam Stops, Curtains, Shields, Walls)? Yes No

Specify:

Isolation Process (Mechanical Equipment, Automation, Remote-Control Used to Reduce Beam Exposure) Yes No

Interlock(s) (Check all that apply)

Mechanical Electrical Key Control

If multiple interlocks are used, specify:

Process Cooling (Check all that apply)

Active Passive Specify Equipment Used:

Excluding lasing material, are there process fluids or gases involved (e.g. water, cryogens such liquid N₂)? Yes No Specify:

Ventilation (Check all that apply)

General Ventilation Local Exhaust Ventilation

Administrative Controls (Work Practices, Scheduling, Communication, Procedures)

Access Control & Use Authorized

Access Restricted Use Authorization Required

Setup and Alignment

Alignment Done In-House?

Beam Trajectory Controlled (not at standing or sitting heights)?

Hazard Communication and Laser Warnings

Laser Warning Lights/Signals Installed

Laser Hazard Signs Posted, with compliant information, at entrance, and curtains if applicable

Laser Hazard Label(s) Affixed, with compliant information, to equipment and conspicuous

Hazard Communication Compliant (Chemical Labels, Inventory, Safety Data Sheets)

Work & Rest Scheduling

Roster Created With Respective Duties/Rotation Assigned: Yes (Attach Copy) No

Work and Rest Schedule Created and Made Available: Yes (Attach Copy) No

Method for Promoting Rest (Check all that apply):

Direct Supervision Buddy System Signage Mandatory Break Schedule

<p><i>Standard Operating Procedures</i></p> <p><input type="checkbox"/> Written Procedure, available in location</p> <p><input type="checkbox"/> Includes Lockout/Tagout Procedure, for maintenance/service</p>			
<p><i>Emergency Procedures</i></p> <p>Emergency procedures are required for recognizing and responding to employees with symptoms/signs of heat-related illness. Emergency Plan Instructions Known, Made Available (e.g. posted at worksite): <input type="checkbox"/> Yes <input type="checkbox"/> No Briefly describe First Aid Equipment & Methods to Be Used:</p> <p>Medical Services: Call 911/ TUPD - (410) 704-4444</p> <p>Emergency Communication Method: <input type="checkbox"/> Phone or Radio <input type="checkbox"/> Buddy System</p>			
<p><i>Information & Training</i></p> <p>The Supervisor is the designated, trained individual for setting up laser, assessing/monitoring conditions and workers for laser-related incidents; implementing the SOP. Proper training for the Supervisor includes knowing how to install/use the laser, knowing how to identify laser hazards, knowing how to correct laser issues, and activate emergency medical services quickly when needed. Are you trained in laser use and safety? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Is laser safety training provided to each Employee? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Have Employees been provided information on all hazards and controls (e.g. SOP) for the equipment they use? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p><i>Personal Protective Equipment (PPE)</i></p> <p><i>Laser Safety PPE</i></p> <p>Eye & Face Protection Use:</p> <p><input type="checkbox"/> Laser Safety Glasses/Goggles <input type="checkbox"/> Laser Safety Face Shield; Optical Density: _____</p> <p><input type="checkbox"/> Body Protection Use, Specify:</p> <p><input type="checkbox"/> Gloves Use, Specify:</p> <p><input type="checkbox"/> Hearing Protection Use, Specify:</p> <p><input type="checkbox"/> Respiratory Protection Use, Specify:</p> <p><i>PPE for Compressed Gas/Cryogen Use</i></p> <p>Eye & Face Protection Use:</p> <p><input type="checkbox"/> Splash Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Body Protection & Gloves (Cryogen-Compatible)</p> <p><input type="checkbox"/> Foot Protection Use (closed-toe shoes)</p>			
<p>Part 4 – Certification</p> <p>I have read and completed this checklist and I will fully comply with all requirements. Relevant plan information is permitted to be attached to this form. I certify that all required precautions have been taken and necessary equipment, materials, information, and training have been distributed.</p>			
<p>Supervisor Name, Printed</p>			
<table border="1"> <tr> <td>Signature</td> <td>Date</td> </tr> </table>		Signature	Date
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