**Standard Operating Procedure: Laser Use**

|  |  |
| --- | --- |
| Principal Investigator: | Date: |
|  |  |
| Department: | Laser Location: |
|  |  |

* *This procedure shall be read and signed annually by all persons who use lasers listed in this SOP.*

1. **LASER SAFETY CONTACTS**

**PI:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Home Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Lab Safety Contact/Lab Manager:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Home Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **LASER DESCRIPTION**
2. All Class 3b and 4 lasers must be used in accordance with ANSI Z136.1-2014.
3. List all lasers that make up the system and provide a brief description of how the laser system will be used.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Type | Class | Wavelength | O.D. | Manufacturer | Model | Serial # | UO ID |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
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C. Specific Non-Beam Hazards of this System (check all that apply)

□ Chemical (dyes, solvents, etc.); attach MSDS if applicable

□ Electrical (high voltage, current, etc.)

□ Laser Generated Air Contaminants

□ Compressed gases or cryogenic liquids

□ Fire/ignition source

□ Other (specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Briefly describe control measures for any items checked above:

1. **LASER ENVIRONMENT**

Define and attach a layout of the laser-controlled area. Show the beam path and location (relative height and direction of travel) in relation to the user. Define the targets.

**4. OPERATING AND SAFETY PROCEDURES**

1. Target area preparation:
2. Startup Procedures (including manufacturer’s recommended steps and the point at which laser protective eyewear must be donned):
3. Operating procedures (power settings, Q-switch mode, pulse rate, other): for normal use.
4. Shut down procedures:
5. Special Procedures (alignment, safety tests, maintenance tests, other):
6. Emergency procedures:

**5. PERSONNEL PROTECTIVE EQUIPMENT**

1. Eyewear

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| LASER EYEWEAR | | | | | |
| For This Laser… | | | …Wear This Eyewear | | |
| Manufacturer/ Model | Type | Wavelength(s) (nm) | Manufacturer/ model | Optical Density  OD | Remarks |
|  |  |  |  |  |  |

1. Other Protective Equipment Required within Nominal Hazard Zone

|  |  |  |
| --- | --- | --- |
| **Item** | **Location** | **Usage Condition** |
|  |  |  |
|  |  |  |

**6. OPERATOR REVIEW**

**I have read and understood this procedure and its contents, and agree to follow this procedure each time I use the laser or laser system.**

**Laser Safety Training**

|  |  |  |
| --- | --- | --- |
| **Name** (printed) | ***Signature*** | **Date** |
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**This SOP shall be:**

* **Read and understood by laser users prior to their initial use of the listed laser.**
* **Reviewed by all laser users following any modification to the laser or laser system that affects operational parameters.**
* **Reviewed annually by all laser users.**
* **This SOP must be readily accessible and available for reference by laser users.**

Required per ANSI Z136.1-2014