**TEMPLATE FOR LAB-SPECIFIC STANDARD OPERATING PROCEDURES (SOP)**

**FOR CLASS 3B and 4 LASERS**

**The American National Standards Institute (ANSI) Standard for Safe Use of Lasers requires that Standard Operating Procedures (SOP) be written and approved for Class 3B and 4 lasers or laser systems.**

The SOP for Class 3B and 4 lasers or laser systems is a summary document that provides safety guidelines for use and operation of the laser or laser system.

The guidelines below are intended to aid Principal Investigators (PIs) and individual laser users in preparing a safety procedure for their lasers and laser systems. The safety procedure below should include all lasers in each laser system including pumping lasers and procedures for safe alignment. Please complete all fields.

**System Description**

|  |  |
| --- | --- |
| Type of Laser |  |
| Manufacturer |  |
| Model |  |
| Serial Number |  |
| Classification |  |
| Wavelength |  |
| Power |  |
| Energy per Pulse |  |
| Pulse Duration |  |
| Repetition Rate of Pulsed Lasers |  |
| Output Beam Diameter |  |
| Beam Convergence |  |
| Intended Application: | |
| Other system attributes not listed above: | |

**Hazards:**  This section should list all hazards (both beam and non-beam hazards) associated with the laser. This includes eye and skin hazards from direct or scattered radiation, electrical hazards, laser generated air contaminants (LGACs), and any other recognized hazards.

Beam Hazards:

Non-beam Hazards

Eye:

Skin:

LGAC:

Scattered Radiation:

Electrical:

Other:

**Control Measures:** This section should list and describe the control measures for the hazards listed above.

Laser protective eyewear type(s) and requirements for use

A brief description of the laser controlled area and entryway controls

A reference to the manufacturer’s equipment manual and its location in the lab

Procedures for Safe Alignment

Start-up and Shutdown procedures including Emergency Shutdown Procedures

**Lab-Specific Training Requirements**: List the specific training requirements for using this laser system as provided by the Principal Investigator (PI) or by the Laser/Laboratory Supervisor. Generic Laser Safety Training is provided to all laser users by Vanderbilt University Environmental Health and Safety Office (EHS); this generic training should be completed prior to lab-specific training.

**Emergency Procedures**: This section should list actions to be taken in the event of an emergency and should list two names and telephone numbers for personnel to be contacted in the event of an emergency.

Emergency Contact #1:

Emergency Contact #2:

**Principal Investigator** responsible for this safety procedure:

Name:

Title:

Office:

Phone:

E-mail:

**Personnel Approved** to use this laser system:

This Safety Procedure was reviewed and approved by:

Name:

Title:

Date of approval: