LASER SAFETY PROCEDURE

### Laser Information

*List laser location, specifications, and revision date of the procedure.*

Room/Building:       Document date:

Manufacturer/Model:       Wavelength (nm):

Laser type/Class:       Power (W)/Energy/pulse(J/pulse):

Beam diameter (mm):       Pulse rate(Hz):

Beam divergence (mrad):       Mode:

### Laser Application

*Outline the application of the laser use in your laboratory/clinic/facility.*

1. **Laser Safety Training**

*All users of Class 3B and Class 4 lasers must be registered as a Laser Worker and receive the following laser safety training prior to operating any laser.*

[1] **Laser Safety Training** – This basic laser safety course is offered by the Environmental Health & Safety Radiation Safety Office.

[2] **Hands-on Training** – This training is provided by the PI or an experienced senior researcher in the lab. This training includes the basic operation of the laser, its associated system, and focuses on the established Laser Safety Procedures for each laser in the lab.

1. **Controls and Personal Protective Equipment (PPE)**

*Laser eyewear should always be worn during laser operation. Include additional PPE required for other hazard involved.*

Laser eyewear (list all types)  Faceshield  UV protected goggles  Gloves Protective clothing

|  |  |  |  |
| --- | --- | --- | --- |
| **Mfg/Model** | **Wavelength attenuated (nm)** | **Optical Density (OD)** | **Storage location/Qty** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. **Engineering and Administrative Controls**

*Check the method of hazard controls for your laser system in the lab/clinic/facility. Check all that apply.*

Illuminated warning light and door posting.

Controlled area (curtain, barrier, enclosure, etc).

Visitor/Observers (specify control measures):

Other (specify):

Access control: All access doors to the lab must be secured.

1. **Laser Hazards Information**

*Please list all hazards associated with this laser system(s).*

Beam hazards

Intrabeam Specular/diffused reflection Invisible beam Ultraviolet (UV)/Blue Light Nonbeam hazards

Electrical Laser generated air contaminants Fire hazard Cryogenics Noise Compressed gases

Microwave, RF, Extremely Low Frequency, or Static Magnetic Fields X-ray Plasma emissions

High Voltage/Capacitors Hazardous Materials/Waste Other:

1. **Procedures**

*Enumerate the steps for operating and alignment procedures.*

Safety Procedure/Checklist

* Ensure warning sign are posted on the door.
* Verify the main door secured and restricts access to only trained and authorized personnel.
* Ensure the laser curtain/beam ports are closed.
* Turn on the laser warning lights.
* Wear appropriate laser eyewear and other necessary PPE.
* Ensure work are is free of specular reflectors- remove any jewelry, tie tacks, watches, etc.
* Ensure that all beam enclosures and/or beam stops are placed properly in the work area.

**Operating Procedures**

**Alignment Procedures**

**Emergency Procedures**

In the event of a laser incident:

* Shut off the laser system and remove the interlock key.
* Obtain medical assistance immediately in case of eye exposure, suspected exposure to laser radiation or any health threatening injuries.
* In the event of fire, pull the alarm, and contact 9-1-1.
* Inform your PI and/or laser supervisor following the incident.
* Contact EH&S Laser Safety Officer to report the incident.

**Emergency Contacts**

Principal Investigator:       Phone/Email:

Laser Supervisor:       Phone/Email:

Laser Safety Officer: Amy Lim Phone/Email: amylhlim@uw.edu / 206-685-5311