Application for Class IIIB and IV Laser Subregistration

**Registration for Lasers and Laser systems**

**Instructions**

Class 3B and 4 lasers, laser systems, and embedded lasers (a laser with a higher class than the laser system) must be registered with Radiation Safety. All Principal Investigators (PI) must be approved and sub-registered by the Radiation Safety Committee prior to using Class 3B and 4 lasers. Additionally, prior approval for procurement and installation of 3b and 4 lasers and laser systems must be obtained from Environmental Health & Life Safety (EHLS) per MAPP 04.01.01.

The application involves items that are required to be completed before the application will be presented for the Radiation Safety Committee’s review and approval. Complete this application form and submit to the Laser Safety Officer (LSO) in the EHLS Department. It is very important for the PI to ensure all required items are addressed to avoid delays; approval for use and request to purchase any additional lasers will not be granted until the application is approved by the Radiation Safety Committee.

A standard operating procedure (SOP) is required as part of the application process. A facility evaluation will be performed during the application review process to ensure proposed research can be conducted safely. Engineering controls will be evaluated post installation to verify that special safety features for the facility meet current requirements. Training requirements for the PIs and all Authorized Users (AU) are part of the application review process and should be completed as early as possible.

**Sub-registration** **Information (to be completed by the Principal Investigator)**

1. PI/ Supervisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Phone:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ E-mail:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Lab Emergency Contact:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Department:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Building/ Office #:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Lab Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Department Chair: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Purpose or Intended Use:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Laser(s) Description:

*(Make another copy of this sheet if necessary)*

|  |  |
| --- | --- |
| Manufacturer |  |
| Model |  |
| Serial # |  |
| Laser Class |  |
| Lasing Medium (HeNe, Argon, etc.) |  |
| Wavelength (nm) |  |
| Maximum Power /Energy (W, J, etc.) |  |
| Output Description (CW, pulse, etc.) |  |
| Nominal Hazard Zone |  |

|  |  |
| --- | --- |
| Manufacturer  |  |
| Model  |  |
| Serial #  |  |
| Laser Class  |  |
| Lasing Medium (HeNe, Argon, etc.)  |  |
| Wavelength (nm)  |  |
| Power (W, J, etc.)  |  |
| Output Description (CW, pulse, etc.) |  |
| Nominal Hazard Zone |  |

|  |  |
| --- | --- |
| Manufacturer  |  |
| Model  |  |
| Serial #  |  |
| Laser Class  |  |
| Lasing Medium (HeNe, Argon, etc.)  |  |
| Wavelength (nm)  |  |
| Power (W, J, etc.)  |  |
| Output Description (CW, pulse, etc.) |  |
| Nominal Hazard Zone |  |

1. Proposed Laser Control Measures

**Access Control/Hazard Warning Signs & Device Labels**

 Yes No

 [ ]  [ ]  Posted entrances (provided by EHLS)

 [ ]  [ ]  Laser access control/device security

 [ ]  [ ]  Control Area (nominal hazard zone) established

 [ ]  [ ]  Warning label on device

 [ ]  [ ]  Laser class label in place

 [ ]  [ ]  Laser hazard label in place

 [ ]  [ ]  Laser aperture label in place

**Administrative Controls**

 Yes No

 [ ]  [ ]  Standard Operating Procedures/Emergency procedures

 [ ]  [ ]  Emergency contacts posted

 [ ]  [ ]  Alignment procedures
 [ ]  [ ]  Personnel authorization

 [ ]  [ ]  Eye protection

 [ ]  [ ]  Skin protection

**Engineering Controls/ Room Design/ Safety Controls**

 Yes No

 [ ]  [ ]  Enclosed beam

 [ ]  [ ]  Protective housing

 [ ]  [ ]  Protective housing interlock

 [ ]  [ ]  Service panel interlocks

 [ ]  [ ]  Door/Laser curtain interlock
 [ ]  [ ]  Key/Lock control

 [ ]  [ ]  Beam Stop/Attenuator

 [ ]  [ ]  Activation warning system/Laser light

 [ ]  [ ]  Windows/doorways covered

 [ ]  [ ]  Reflective materials removed

 [ ]  [ ]  Limited access to spectators/visitors

 [ ]  [ ]  Laser secured to table or other work surface

 [ ]  [ ]  Beam intensity reduced or filtration in place

 [ ]  [ ]  No Laser beam at eye level

**Non-Beam Hazards**

 Yes No

 [ ]  [ ]  Laser generated airborne contaminants

 [ ]  [ ]  Fire hazard

 [ ]  [ ]  Explosive hazard

 [ ]  [ ]  Compressed gases in use

 [ ]  [ ]  Laser dyes in use

 [ ]  [ ]  Cryogens in use

If yes, explain and include safety plans/measures here (use additional sheet as required):

1. Provide the following specific information (use additional sheet as required):
2. Summary of Laser procedures.

1. Procedures for alignment, maintenance, and/or service, including procedures for the bypass of safety interlocks (additional requirements apply for clinical use lasers).

1. Description of planned equipment modifications or updates to the system.

1. Outline a method in which the lab and equipment can be shut down by EHLS, and users can be denied access in the event of non-compliance. (This outline will be verified during the application review process).

1. Summary of PIs training and experience with lasers including institution, courses taken, duration, etc.

1. Important notes:
2. Certification of training must be documented for all users to operate or maintain the laser system.

List of Authorized Users\*:

 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PSID \_\_\_\_\_\_\_\_ UH Email:\_\_\_\_\_\_\_\_\_\_\_\_\_ Initial\_\_\_

\* Authorized Users must have read the Laser Safety Manual and must verify by signing their initials.

\* Authorized Users must have received specific laser safety training for laser hazards in their labs from their PI and must verify by signing their initials.

\* Authorized Users must have attended and passed the UH Laser Safety Course and must verify by signing their initials.

 (Other Authorized Users may be added later by amendment after completing these requirements)

1. This application is strictly for non-human use only. Laser use on humans under the scope of this authorization is prohibited. (Indicate if clinical use laser is involved)
2. Any actual or suspected exposure must be reported to the LSO immediately.
3. Modifications and repairs to laser devices/system that could affect the beam quality (excluding routine beam alignment) must be reported to and receive prior approval from the LSO before the device is put back to use.
4. Notify the LSO when the status of device is changed from “Active” to “Inactive” and vice versa.
5. Notify the LSO prior to laboratory close-out, relocation, and/or transfer of laser device to another PI(s), including transfer out of the University, or disposal of a laser. PIs leaving the University must follow the [PI checkout procedure](http://www.uh.edu/ehs/manuals_and_forms/PI_Checkout_Procedure.pdf) on the EHLS website.
6. Notify the LSO before addition of an Authorized User. Privileges of departing Authorized Users should be suspended immediately and communicated to the LSO.
7. It is recommended that a log be maintained to document the specific personnel and date/time that the equipment is being used.
8. Provide a sketch of the room and the proposed location of the laser. Identify the laser control area. Use additional pages if necessary.

**CERTIFICATION**

I certify that the information contained herein and attached hereto is true and correct to the best of my knowledge.

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PI Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_