Prior to filling out a laser project approval application, **you need to first register the lasers**. See our website for more information on lasers registration <https://research.unsw.edu.au/lasers>. Use this form to seek RSC approval for your project involving the use of Class 3B or 4 lasers as indicated by manufacturer’s label. If you’re using a laser without a label or constructing a laser, you need to contact the RSC ([radiationsafety@unsw.edu.au](mailto:radiationsafety@unsw.edu.au)).

**A. Is this project a**

☐ new project

☐ renewal of (provide details of previous approval)

|  |
| --- |
|  |

B. I**s this project related to another approved project?**

☐ no

☐ yes (please provide details)

|  |
| --- |
|  |

**C. Project title:** *Provide a succinct title*

|  |
| --- |
|  |

**D. Summary of the project:** *Provide a short description (focusing on the laser use) of the project*

*with sufficient details that the approver can gain a baseline understanding of the project and its significance. You also need to include here some explanation on laser characteristics and describe the potential exposure to users & 3rd party. If appropriate, give calculation of MPE and/or NOHD*

|  |
| --- |
|  |

**E. Lasers involved in this project:** *List here information of all the lasers to be used in the project. Add more if required.*

**Laser 1.**

**Description:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Manufacturer** | **Type (e.g. Nd:YAG)** | **Model #** | **Serial #** | **Owner** |
|  |  |  |  |  |

**Specifications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Class** | **Wave-length(s)** | **CW or Pulsed inc width & rep rate (if appropriate.)** | **Power / Energy** | **NOHD/ NSHD** |
|  |  |  |  |  |

**Laser 2.**

**Description:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Manufacturer** | **Type (e.g. Nd:YAG)** | **Model #** | **Serial #** | **Owner** |
|  |  |  |  |  |

**Specifications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Class** | **Wave-length(s)** | **CW or Pulsed inc width & rep rate (if appropriate.)** | **Power / Energy** | **NOHD/ NSHD** |
|  |  |  |  |  |

**F. Laser Safety Management Plan (LSMP):** *This section ensures the hazard management strategies that you have in place are justified, relevant and appropriate. All laser classification and hazard analysis is to be in accordance with AS/NZS IEC 60825 Safety of laser products Part 1 & Part 14. If this project is conducted in a facility that contains multiple lasers from multiple groups, this LSMP should be developed in consideration of risks from and for all other users in the space.*

**1. Elimination:** *Can the laser hazard be managed by not using lasers? Justify why this project need to be done using laser e.g state of the art, unique laser properties required for research etc.*

|  |
| --- |
|  |

**2. Substitution:** *Can the laser hazard be managed by using lower risk lasers? Justify why this project needs hazardous lasers and aims cannot be achieved with non-hazardous lasers e.g. very weak interactions, very low efficiency conversions, requires a plasma etc.*

|  |
| --- |
|  |

**3. Isolation:** *Will all personnel be physically isolated from the laser hazard (i.e. an embedded laser)? Justify why this project cannot be conducted without requiring personnel to be in the same physical space (e.g. remote operation) as the laser hazard for all or partial operation e.g. very fine adjustment needed continually during operation, laser cannot be controlled remotely etc.*

|  |
| --- |
|  |

4. **Engineering control:** *Describe the engineering controls currently put in place to*

1. *isolate the laser hazard environment e.g. operation in a dedicated facility, in-built laser interlock, shutter system, overrides, laser curtains, no windows etc.*

|  |
| --- |
|  |

1. *protect people within the laser hazard environment e.g. beam stops, key control, beam enclosures, specular & diffuse reflectors, master switch, screens etc.*

|  |
| --- |
|  |

1. *protect people from non-beam hazards e.g. chemicals, electrical, mechanical, fire, cryogenics, gas cylinders, collateral radiation, noise, human factor, trip hazard etc.*

|  |
| --- |
|  |

1. *Other*

|  |
| --- |
|  |

**5. Administrative control:** *Describe the procedures in place to supplement or mitigate the risk of exposure not managed by the engineering controls listed above. A brief description of the controls and appropriate cross-reference to SWP/lab manual is acceptable. These might include: signage, working alone, supervision, training, alignment procedure, emergency procedure, access procedure etc.*

|  |
| --- |
|  |

**6. Personal Protective Equipment (PPE):** *In general, PPE should be employed as the last option to mitigate the residual risk that cannot be managed by engineering or administrative controls. Tick the PPE controls below as appropriate:*

**☐ laser eye protection**

|  |  |
| --- | --- |
| Manufacturer |  |
| Model |  |
| Optical Density at required wavelength |  |

**☐ skin protection**

|  |
| --- |
|  |

**☐ other (lab coat/gloves)**

|  |
| --- |
|  |

**G. Project Personnel:** *The RSC recommends the following authorised activities for appropriate access level. Please see our website* [*https://research.unsw.edu.au/lasers*](https://research.unsw.edu.au/lasers) *for more information on training & access level.*

|  |  |
| --- | --- |
| ***Access Level*** | ***Authorised Activities*** |
| ***Trainee*** | Access to laser lab but not controlled laser. Must be under direct supervision at all time |
| ***Operator*** | Access to laser lab & controlled lasers & can provide direct supervision to Trainee |
| ***LSS*** | Provide general supervision and lab induction to lab users & grant access control to lab users upon Project Supervisor’s recommendation |
| ***Project Supervisor*** | Overall authority & responsibility for project personnel’s H&S & make recommendation to LSS to grant a user appropriate access upon satisfactory completion of training (induction, laser courses, on the job training) |

*List the people involved in this project:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Laser Safety training completed (level & date) | Induction complete (lab manual & SWPs)  (date) | On Job Training Completed (date) | Level of Access in this project |
| E.g. Joe Blow | L3 – 29/2/2020 | Signed here | 1/4/20 | Operator |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**H. Project Supervisor:**

|  |  |
| --- | --- |
| **Title & Full Name** |  |
| **Position** |  |
| **Faculty/School** |  |
| **Contact number** |  |
| **Email address** |  |

I. **Location:** *Where will the project be conducted?*

|  |  |
| --- | --- |
| School/Centre |  |
| Building (name & number) |  |
| Level & Room number |  |

**J. Laser Safety Supervisor** (if different from Project Supervisor): *Who is responsible for the day to day laser safety and implementation of the project’s Laser Safety Management Plan detailed above)*

|  |  |
| --- | --- |
| **Title, Given Name, FAMILY NAME** |  |
| **Position** |  |
| **Contact number** |  |
| **Email address** |  |
| **Laser Safety training completed** | Senior laser safety officer (5 day) Y / N  Laser safety officer/Supervisor (1 day) Y / N |

1. **Attachment:**

|  |  |
| --- | --- |
| The following documents **MUST BE** attached or its SafeSys Item Number given | |
| **Documents** | **State SafeSys** **Item Number or “Attached”** |
| Lab Manual |  |
| Safe Work Procedure |  |
| Schematic of the lab setup |  |

1. **Declaration:**

|  |
| --- |
| **This application will not be presented to the RSC without all of the signatures**  **Note1\*: if there is more than one Project Supervisor, each must sign**  **Note2\*: where more than one facility will be used (work and/or storage), please provide signatures for each facility**  **Note3\*: where a research group is carrying out work at another groups facility, the Heads of both groups must sign** |
| **Note1\*** Project Supervisor (named in Section 1)  **Print Name:**  Signature: Date: |
| **Note2** Area’s Laser Safety Supervisor  **Print Name(s)**:  **Email:**  Signature(s): Date: |
| **Note3\***Head of School or Research Organisation (for affiliated Organisations)  **Print Name and Position**:  **Email:**  Signature: Date: |

*Please submit* ***electronic word version*** *of the completed form, pdf scan of signature page and all attachments via email to the* ***RSC Support Officer****:* [*radiationsafety@unsw.edu.au*](mailto:radiationsafety@unsw.edu.au)