**Naval Postgraduate School Class 3B/4 Laser Standard Operating Procedure**

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| --- | --- | --- |
| **Date:** |  |  |
| **Name of Custodian:** |  |  |
| **Location of Laser:** |  |  |
| **Lasers Authorized** | | |
| **Laser Manufacturer:** |  |  |
| **Laser Model:** |  |  |
| **Laser Serial Number (s):** |  |  |
| **Normal Operations** | | |
| **Laser Class:** |  |  |
| **Laser Power:** |  |  |
| **Lasing Medium:** |  |  |
| **Operating Mode (e.g. CW or Pulsed):** |  |  |
| **If Pulsed: Pulse length and PRF:** |  |  |
|  |  |  |
| **Brief Description of the purpose of this laser:** |  |  |
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| **Beam Alignment Procedures:** |  | 1.Exclude unnecessary personnel from the laser area during the alignment process.  2.Use low-power visible lasers for path simulation of higher-power lasers (both visible and invisible), whenever possible.  3.Wear appropriate eyewear, and skin protection to the extent practical.  4.For invisible lasers, use beam display devices (e.g. image converter viewers, phosphor cards, CCD).  5.Perform alignment at the lowest power possible.  6.Use shutter or beam block to block high-power beams at their source, except when beam is actually required.  7.Use shutter or beam block to terminate high-power beams down range of the optics being aligned.  8.Use a laser-rated beam block to terminate barriers in conditions where alignment beams could stray into areas with uninvolved personnel.  9.Place beam blocks behind optics (e.g. turning mirrors) to terminate beams that might miss mirrors during alignment.  10.Locate and block all stray reflections before proceeding to the next optical component or section.  11.Be sure all beams and reflections are properly terminated before high-power operation.  12.Post appropriate area warning signs during alignment procedures.  13. Replace any enclosures or beam blocks removed as part of the alignment process. |
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| **Entry Restrictions** | | |
| **Entry Restrictions while this laser is operating:** |  | For other than emergency circumstances, entry into a space where this laser is operating requires permission of the custodian above and the entrant must either be trained in NPS laser safety or accompanied by/escorted by someone who is so trained. All entrants must wear protective eyewear prescribed by this SOP upon entry. |
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| **Protective Eyewear** | | |
| **Required Optical Density:** |  |  |
| **Wavelength(s):** |  |  |
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| **Startup Safety Requirements** | | |
| **Startup Safety Prerequisites:** |  |  |
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| **Emergency Shutdown Procedures** | | |
| **Emergency shutdown procedures for fire, rescue, and security personnel in case of emergency:** |  |  |
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| **Conditions for Unattended Operation (if applicable)** | | |
| **The following precautions shall be observed for all unattended operations:** |  |  |
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| **Hazardous Materials Allowed in support of the operation of this Laser** | | |
| **Exact hazardous material allowed and conditions of permitted use, including personal protective equipment, firefighting equipment, ventilation requirements, storage**  **containers, allowed amounts, and emergency response procedures:** |  |  |
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| **Specific prohibitions for the operation of this Laser** | | |
| **Specific prohibitions (e.g., no smoking or flames, no eating or drinking, etc.):** |  |  |
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| **Two Person Rule** | | |
| **Does this laser require that at least two people be present for normal operations ?** |  |  |
|  |  |  |
| **Additional Miscellaneous Precautions and Procedures unique to the Operation of this Laser** | | |
| **Additional Miscellaneous Precautions and Procedures unique to the Operation of this Laser not covered above:** |  |  |

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Designated Laser Custodian

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Laser Systems Safety Officer

Attachments:

1. Laser Hazard Analysis (Completed by LSSO)
2. Operations Risk Management Assessment (Completed by Custodian)