# Laser Inspection Criteria

## Category

### Documentation

- Chemical/biological/radiological material inventories are current and on file at EH&S.
- Access to the facility is controlled.
- Room corridor doors are closed unless held open by alarm-deactivating magnets.
- Appropriate signage is present on the entry door and within the lab (i.e. emergency contacts, appropriate biosafety level, radiation safety rules, equipment markings).
- Emergency action plan is posted.
- Current safety training records are available.
- Current safety manuals are available in lab or online, as appropriate.
- Standard Operating Procedures (SOPs) have been developed for use of hazardous (chemical/biological/radiological) materials and/or equipment.
- Safety Data Sheets (SDSs) for chemical/biological hazardous materials are available.
- Safety Surveys are being conducted and documented.
- Hazard Inventory Form is complete and on file for each employee.
- Laser users have completed a baseline eye exam.
- An up to date radiation use authorization is available in the lab.
- Laser SOP has been approved by the LSO.

### General Safety

- Work practices are being performed safely.
- Good housekeeping is in evidence. (Exits and aisles are unobstructed. Areas are clean, uncluttered and trash is properly disposed.)
- Food, beverages, tobacco products, and cosmetics are absent from work areas.
- Sink, soap, and towels are available for hand washing.
- Electric items are used correctly (i.e. cords in good condition, breakered UL power strips, high wattage equipment plugged in directly, no extension cords or tandem power strips).
- Suitable personal protective equipment is available, worn, in good shape, left in the lab and stored properly.

### Equipment

- Fire extinguishers are charged and unobstructed.
- Appropriate spill control kit is available.
- Appropriate first aid kit is available.
- Eyewash and safety shower are available, unobstructed and eyewash flushed monthly (documented) by occupants.
- Fume hoods are certified annually and used properly.
- Refrigeration equipment is properly labeled.
- Vacuum equipment is protected with a trapped or filtered properly.
- Secondary containment is being used with liquid hazardous materials and mercury containing equipment.
- The radioactive material or radiation producing device usage log is available and up to date.

### Laser

- Laser optical viewing instruments are equipped with filters to keep exposures below MPE limit.
- Laser viewing portals in the protective housing are equipped with filters to keep escaping light below MPE limit.
- Laser protective housing is present and used.
- Laser protective housing interlocks work.
- Laser beam attenuator/shutter is operational.
- Laser entry way and control panel warning lights and/or alarms work.
Room door is interlocked with the laser system.
Laser is equipped with a removable master key switch and is inoperable when key is removed or has a secure system log in.

<table>
<thead>
<tr>
<th>Category</th>
<th>Criterion</th>
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<tbody>
<tr>
<td><strong>Laser</strong></td>
<td><strong>Class 4 Laser</strong>: the emergency stop is identified and operable.</td>
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<td><strong>Class 4 Laser</strong>: a key control system is in place for interlock override system.</td>
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<td><strong>Class 4 Laser</strong>: interlock lights are operational.</td>
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<td>Laser: the path is either above or below normal eye level (i.e. &lt;4.5ft. Or &gt;6.5ft.).</td>
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<td>Laser: diffuse and specular reflection hazards have been assessed and minimized.</td>
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<td>Laser: secondary beams are terminated.</td>
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<td>Laser: the beam is enclosed as much as possible and the housing is interlocked with the laser system.</td>
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<td>Laser: doors and windows are closed and covered.</td>
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<td>Laser: protective eyewear is available, designed for proper wave length, and of proper optical density.</td>
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<td>Laser: ventilation is appropriate (i.e. general, local, and near target).</td>
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<td>Laser: the beam backstop is appropriate (i.e. fire resistant, diffuse reflectivity, low reflectivity).</td>
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<td>Laser: Biological usage has been reviewed by the EH&amp;S Biosafety group.</td>
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<td>The beam ports are closed or filtered.</td>
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</table>

**Chemicals and Storage**

- Containers (including waste) are appropriately labeled, with names spelled out and closed when not in use.
- Incompatible chemicals are being stored separately and all chemicals are stored by hazard category.
- Flammable liquids are being stored correctly. (>1gal in approved containers, >10gal (accumulative) in flammable cabinet)
- Peroxide formers are properly labeled (yellow sticker), dated and disposed of by expiration date or tested as directed by policy.
- Gas cylinders are secured, away from heat sources, and capped when not in use.

**Unwanted Materials**

- Waste materials are being stored in a satellite accumulation area (SAA) at or near the point of generation, identified and complying with EH&S signage and picked up within 90 days.

**Supplemental Information**

- No deficiencies noted at this time.
- Additional Comments.
- No deficiencies were noted in this space at the time of this survey.