

## **Guidelines for Users of Laser Systems**

The guidelines for users who bring in and/or use high-power laser systems at SPring-8 or SACLA are as follows:

### **[Definition]**

Laser is defined as laser systems of Class 4, Class 3 and Class 3R lasers specified by IEC 60825-1 standard.

### **[Laser Supervisor]**

1. In order to manage the use of the Laser,
  - a. when SPring-8 or SACLA users temporarily bring in the Laser to carry out experiments at SPring-8 or SACLA, the project leader shall be appointed as the Laser Supervisor, and
  - b. when SPring-8 or SACLA users carry out experiments using the Laser installed in SPring-8 or SACLA, users of the Laser shall follow the instructions of the Facility Laser Supervisor.
2. To bring in the Laser, the Laser Supervisor shall submit a Form 24-1 (Laser Use Authorization Application) to the Director of JASRI Safety Office via SPring-8/SACLA Users Office. To use the Laser installed in SPring-8 or SACLA, the users of the Laser shall submit a Form 24-2-2 to the Director of JASRI Safety Office via SPring-8/SACLA Users Office.
3. The Laser Supervisor shall manage the Laser to be brought in to SPring-8 or SACLA, safety device attached to the Laser and the protective gears.
4. Users of the Laser shall receive laser safety training from the Facility Laser Supervisor. The Laser Supervisor and users of the Laser shall confirm and sign the Guidelines for Users of Laser Systems.
5. In the case of laser hazards or possible laser hazards, the Laser Supervisor shall report to the Director of JASRI Safety Office immediately.

### **[Required Safety Measures]**

The Laser Supervisor shall make sure that the following safety measures are in place when submitting a Form 24-1.

**(Class 3R)**

1. A laser controlled area must be established and a warning sign must be posted around the area.
2. The performance of the Laser to be used and the operating and safety instructions must be posted at the entrance of where the Laser is installed.
3. Laser protective eyewear must be worn.
4. Locate the laser beam path well above or below the eye level of any sitting or standing observers. A solid stray beam shield must be securely mounted to prevent accidental exposure to the laser beam.
5. There must be a master key-switch on the laser control panel.
6. There must be a warning light to indicate that the laser is in operation or ready for operation.

**(Class 3B, Class 4)**

In addition to the safety measures for Class 3R lasers,

1. There must be a “Panic Button” (switch or equivalent device) to quickly deactivate the laser.
2. Lasers must be equipped with a beam shutter that covers the aperture.
3. Doors to the laser controlled area must be provided with safety interlocks.
4. Beam path must be terminated with a non-reflecting, fire-resistant backstop.
5. Please contact the Safety Office after the installation for the test of the interlock.

**[Eye Examination]**

The Laser Supervisor and users of the Laser shall receive a baseline eye examination (cornea, lens, and ocular fundus tests) before laser use and at least once a year thereafter.

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Safety Office

Japan Synchrotron Radiation Research Institute (JASRI)

I confirm that I have received appropriate safety training by JASRI and that I have read, understood, and agree to abide by the above Guidelines for Users of Laser Systems.

Date(mm/dd/yyyy) :        /        /

User Card No. : \_\_\_\_\_

Name(Signature) : \_\_\_\_\_