

# SESLHD POLICY COVER SHEET



**Health**  
South Eastern Sydney  
Local Health District

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<b>EXECUTIVE SPONSOR</b>	Executive Director Operations
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<b>POSITION RESPONSIBLE FOR THE DOCUMENT</b>	District Radiation Safety Officer <a href="mailto:SESLHD-RadiationSafetyOfficer@health.nsw.gov.au">SESLHD-RadiationSafetyOfficer@health.nsw.gov.au</a>
<b>FUNCTIONAL GROUP(S)</b>	Radiation Safety
<b>KEY TERMS</b>	Lasers, Laser safety
<b>SUMMARY</b>	To limit the risk to health of staff and members of the public arising from exposure to laser radiation at any facility in the Local Health District.

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**1. POLICY STATEMENT**

The South Eastern Sydney Local Health District (SESLHD or the LHD) is committed, through a risk management approach, to protecting employees, contractors, students, volunteers, patients, members of the public and the environment from unnecessary exposure to potentially damaging LASER light arising from the systems and processes which use LASERs within its facilities.

**2. AIMS**

- To comply with all State and Commonwealth legislation that is applicable to the use of lasers. The *Protection from Harmful Radiation Act 1990* (NSW) (as amended), gives the NSW government the powers to control non-ionising radiation, including lasers. The Radiation Control Regulation 2003 currently does not regulate the use of lasers but this may change in the future.
- To comply with the relevant Australian Standards, in particular AS/NZS 4173:2018 *Safe use of lasers and intense light sources in health care*, IEC AS/NZS 60825-1 2014 *Safety of Laser Products: Equipment classification and requirements*, AS/NZS 1336 2014 *Eye and face protection—Guidelines* and AS/NZS 1337-4 2011 *Eye and face protection—Filters and eye protectors against laser radiation (laser eye protectors)*.
- To comply with the ACORN Standard 2023, Laser Safety
- To limit the risk to health of staff, patients, visitors, contractors, students, volunteers and members of the public arising from exposure to lasers at SESLHD facilities.
- To establish a system of managerial responsibility and accountability for laser safety.
- To integrate laser safety into organisational planning and activities.
- To audit and continually improve laser safety standards and procedures.
- To investigate all incidents involving lasers and to implement measures to prevent reoccurrence of these incidents.
- To have all employees, medical officers, contractors and visitors recognise their responsibility to identify, report, and eliminate laser hazards and to prevent injury to themselves and to others.
- This policy refers to laser radiation which is a form of non-ionising radiation. Radiation safety policies and procedures which deal with ionising radiation are dealt with in [SESLHDPD/296 – Radiation Safety – Ionising Radiation](#).

**3. TARGET AUDIENCE**

Services and Departments specifically covered by this policy include:

- Operating Theatres
- Gastroenterology
- Urology
- Ophthalmology
- Physiotherapy

## **4. RESPONSIBILITIES**

### **4.1 Chief Executive**

The Chief Executive is responsible for the health, safety and welfare of persons within all facilities of the LHD. Although the Chief Executive may delegate responsibility for laser safety within the facilities of the District to a Laser Safety Officer or a Hospital Manager, ultimate responsibility for implementation of the laser safety program and compliance with relevant legislation and standards rests with the Chief Executive.

### **4.2 Hospital Managers**

Hospital Managers are responsible for workplace health and safety within their facilities and must ensure that all resources necessary for the laser safety program are provided, including:

- personal protective equipment
- safety devices, and
- laser safety training.

### **4.3 Laser Safety Committee**

Each locality within SESLHD shall establish a Laser Safety Committee (LSC) responsible for identifying and addressing laser safety issues at sites within the locality. Alternatively, this function may be performed by an existing Radiation Safety Committee. The Committee should include representation from all areas of laser use within the locality.

The Committee is responsible for:

- adopting regulations and standards and drafting safe work practices concerning the use of lasers
- establishing programs for the training of physicians, nurses and medical laser service personnel
- developing standard operating procedures, including, for example, pre and post-operative checklists for the use of lasers
- developing appropriate reporting procedures and action plans following a known or suspected accidental exposure to laser radiation, and
- review and approval of any laser technology acquisitions and the design of facilities where lasers are to be employed.

### **4.4 Laser Safety Officer**

A Laser Safety Officer (LSO) shall be appointed to advise and assist a Hospital (or group of hospitals) in fulfilling the legislative responsibilities for laser safety.

In addition to the reporting function, the LSO will:

- Monitor appropriate use of safe work practices, safety equipment and control measures when laser procedures are performed

- Periodically review the documentation maintained by Departments where lasers are used regarding safe use, credentialing and training
- Investigate and report on incidents or accidents involving lasers and implement any necessary urgent actions following the occurrence of a laser accident
- Survey all new laser facilities for safety hazards before operations commence. The LSO shall be consulted in the planning stages of any new laser facility, including procurement of new lasers, to ensure appropriate environmental hazard management
- Approve the designation of particular employees as Laser Safety Supervisors
- Liaise with the site Director of Medical Services concerning the credentialing of laser practitioners
- Maintain laser policies, procedures and business rules, particularly with respect to hazard evaluation, signage and control measures, consequent to site inspections and audits
- Provide periodic reports to the site laser safety committee on laser incidents, compliance with training requirements, practitioner credentialing and audits of laser areas and PPE; and
- Assist National Standards and NSW MoH WHS audit preparation, in conjunction with the Radiation Safety Officer (RSO).

Laser Safety Officers have the authority to stop any unsafe operations or proposed actions involving laser radiation that come to their attention, and to implement any necessary urgent actions following the occurrence of a laser accident. They will assist Workplace Health and Safety officers with the investigation of laser-related incidents and accidents.

In some facilities, the LSO may also fulfil the duties of the Radiation Safety Officer (RSO).

**4.5 Department Directors and Unit Managers**

Directors and/or Unit Managers of Departments where lasers are used have delegated authority for the management of laser safety within their department.

For departments in which staff use laser apparatus, the specific responsibilities include:

- Ensuring that all employees and contractors working in their department comply with the LHD laser safety policy and procedures and any relevant local business rules
- Ensuring that all employees in their department receive appropriate induction and continuing laser safety training, and that records of this training are maintained
- Ensuring that all staff who may be exposed to laser radiation are provided with and correctly use the appropriate personal protective equipment
- Ensuring that all laser accidents are investigated to determine preventative and/or corrective actions
- Ensuring that only those staff or contractors who hold an appropriate credential undertake work involving laser radiation, and

- Ensuring that current records detailing the condition of all laser equipment, and/or premises are maintained.

#### **4.6 Laser Safety Supervisor**

A Laser Safety Supervisor (LSS) will be appointed to provide local supervision of a particular area in which lasers are used, to ensure that the local rules are implemented.

A Laser Safety Supervisor will:

- Liaise with the Laser Safety Officer on such matters as hazard evaluation and medical surveillance
- Ensure that all new employees required to work with the laser are adequately instructed on safety measures appropriate for their role
- Ensure that an adequate supply of protective eyewear for each laser used in the area is available to staff
- Ensure that all required documentation relating to the use of the laser is completed
- Manage follow-up of laser incidents and accidents in his/her area
- Arrange any required medical examinations for staff involved in laser accidents; and
- Assist the LSO with Laser Safety audits of his/her area.

Appointment and retirement of an employee as LSS must be notified to and approved by the site Laser Safety Officer. The Laser Safety Supervisor may also fulfil the role of a Laser Safety Nurse.

#### **4.7 Laser Safety Delegate**

During any laser procedure, a Laser Safety Delegate (LSD) must be designated to provide immediate supervision during a particular laser procedure and ensure compliance with local rules. Each laser procedure performed in a particular area must be attended by a LSD, who then has primary operational responsibility for laser safety during a laser procedure.

During the Laser procedure, the Laser Safety Delegate will:

- Identify themselves to the Laser Operator and Practitioner
- Only permit operation of the laser when there is adequate control of laser hazards
- Set up the laser equipment, ensuring correct laser, signage, eye protection and any required laser barriers are in place
- Ensure that all staff in the laser area are equipped with appropriate PPE for the laser being used
- Report of known or suspected accidents or incidents both directly to the LSS and through the hospital incident reporting system (IIMS); and
- Ensure that all documentation relating to the use of the laser is completed.

Designation of a LSD is performed by the local LSS, out of a pool approved by the site LSO. The Laser Safety Delegate will commonly also fulfil the role of the Laser Operator. The Laser Safety Delegate may not be required where only the Laser Practitioner and patient are present and the Laser Practitioner operates the laser (e.g. ophthalmology).

#### **4.8 Laser Operator and Laser Practitioner**

Laser Operators and Laser Practitioners are clinical staff. The Operator is responsible for managing the laser control panel during a laser procedure whilst the Practitioner is responsible for directing the laser beam. In some circumstances, where approved by the site LSO, these roles may be fulfilled by a single person.

During a Laser procedure, Laser Operators and Practitioners will:

- Ensure that a LSD is present if required and is identified to other staff in the procedure area
- Confirm with the LSD that there is adequate control of laser hazards in the area before commencing the procedure
- Ensuring satisfactory completion of any required tests of the laser and delivery system prior to anaesthetising the patient; and
- Informing all staff in the procedure area when the laser is in operation.

The Laser Practitioner must either:

- hold a local facility credential for the use of a particular type of laser for a particular class of surgical and/or medical procedures; or
- be supervised by a holder of such a credential.

#### **4.9 Staff Working in Areas Where Lasers are Utilised**

All staff working in areas where lasers are used must comply with the requirements of this policy and related procedures. In particular, they must:

- Wear any protective equipment provided by the facility whilst in the vicinity of an active Laser device
- Promptly report any incident, near miss or perceived hazard involving a laser to their Department Manager or Laser Safety Supervisor and enter into IIMS within the appropriate timeframe
- Attend any laser safety training required by the organisation; and
- Advise their Department Manager or Laser Safety Supervisor of any laser equipment which may be malfunctioning.

Any staff member who experiences unprotected eye exposure to clinical laser light must report the incident immediately to their supervisor and obtain an immediate ophthalmological assessment through Staff Health or the Emergency Department. An IIMS report describing the incident must be submitted as soon as practicable and the LSO made aware. Standard workplace health and safety response to actual or potential harm must be enacted.

#### **4.10 Biomedical Engineering**

The Department of Biomedical Engineering is responsible for the laser technical support program, which comprises:

- Managing the electrical safety and performance testing of all laser devices
- Testing and maintaining any engineering controls associated with laser areas
- Liaison with contractors to effect routine maintenance and repair of laser devices as appropriate



- Maintaining service records for all laser devices in operation, and
- Participating with the LSO in the investigation of laser accidents and incidents involving misuse, failure or absence of engineering controls.

**4.11 Other Personnel and Contractors**

Contractors will comply with all LHD laser safety procedures and the LHD Contractors Management Procedure SESLHDPR/333 and procedures through the LHD Contractor Induction program.

**5. DEFINITIONS**

**LASER:** light amplification by stimulated emission of radiation. A device that emits high intensity, highly collimated, mono-chromatic light through a process of optical amplification.

**LSO:** Laser Safety Officer. An officer responsible for the Laser Safety program within one or more Hospitals.

**LSS:** Laser Safety Supervisor. A person with the delegated responsibility of the LSO for laser safety within a particular area (e.g. Operating Theatres) of a Hospital.

**LSD:** Laser Safety Delegate. A person, often a nurse, responsible for ensuring operational laser safety during a particular laser procedure.

**NIR:** non-ionising radiation. A form of radiation that does not carry enough energy per particle (photon) to remove an electron from an atom or molecule.

**NOHD:** Nominal Ocular Hazard Distance. The distance from the laser beam port beyond which beam exposure is unlikely to result in injury.

**NOHA:** Nominal Ocular Hazard Area. The region around a laser where eye protection is required. Normally this is the entire room in which a laser is used, but may be less for specific lasers.

**6. DOCUMENTATION**

**6.1 Contact Details for Laser Safety Officers**

	<b>Business Hours</b>	<b>After Hours</b>
Northern Sector LSO/RSO	9382 8067	Prince of Wales Hospital Switchboard
Southern Sector LSO/RSO	St. George Hospital Switchboard	St. George Hospital Switchboard

**7. REFERENCES**

- [Protection from Harmful Radiation Act 1990 \(NSW\)](#)
- [Work Health and Safety Act 2011 No 10 \(NSW\)](#)
- [Work Health and Safety Regulation 2017 \(NSW\)](#)
- [NSW Health Policy Directive PD2022\\_023 – Enterprise-wide Risk Management](#)
- [SESLHDPR/212 – Health, Safety and Wellbeing Risk Management](#)
- [SESLHDHB/021 – Contractor Safety Handbook](#)
- [SESLHDPR/333 – Contractor Management Procedure](#)
- [SESLHDPR/162 – Laser Safety - Managing the Hazards](#)

**8. VERSION and APPROVAL HISTORY**

Date	Version No.	Author and approval notes
23 October 2024	1.0	Policy document drafted to harmonise with SESLHDPR/162 – Laser Safety – Managing the Hazards. Approved at SESLHD Patient Safety and Quality Committee.