

SESLHD POLICY COVER SHEET



Health
South Eastern Sydney
Local Health District

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AUTHOR	SESLHD Radiation Safety Officer
POSITION RESPONSIBLE FOR THE DOCUMENT	District Radiation Safety Officer SESLHD-RadiationSafetyOfficer@health.nsw.gov.au
FUNCTIONAL GROUP(S)	Radiation Safety
KEY TERMS	Security, radiation, radioactive substances
SUMMARY	To ensure that all reasonably foreseeable security risks associated with radioactive substances are identified, assessed, eliminated where reasonably practicable or effectively controlled.

COMPLIANCE WITH THIS DOCUMENT IS MANDATORY
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Radiation Safety - Security of Radioactive Sources**SESLHDPD/149****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 radiation arising from systems and processes which use radiation apparatus and radioactive substances, whilst maintaining optimum diagnostic and therapeutic quality, therapeutic efficacy and patient care.

The LHD is also committed to ensuring that all reasonably foreseeable security risks associated with radiation sources are identified, assessed, eliminated where reasonably practicable or effectively controlled.

2. AIMS

- To comply with the *Protection from Harmful Radiation Act 1990* (NSW) and *Protection from Harmful Radiation Regulation 2013* (NSW).
- To comply with the Ministry of Health Policy and Guidelines for “Security Risk Management in Health Facilities” in relation to the security of radioactive substances.
- To achieve and maintain a high level of safety and security of radioactive sources.
- To prevent unauthorised access or damage to, and loss, theft or unauthorised transfer of, radioactive sources, so as to reduce the likelihood of accidental harmful exposure to such sources or the malicious use of such sources to cause harm to individuals, society or the environment.
- To mitigate or minimise the radiological consequences of any accident or malicious act involving a radiation source.
- To instil an effective security culture in the organisation, to ensure that security issues receive the attention warranted by their significance.

It is important that safety and security measures are designed and implemented in an integrated manner so that security measures do not compromise safety and safety measures do not compromise security.

Security infrastructure and safety infrastructure need to be developed, as far as possible, in a well-coordinated manner. All organisations involved need to be made aware of the commonalities and the differences between safety and security so as to be able to factor both into development plans.

3. TARGET AUDIENCE

Services and Departments specifically covered by this policy include:

- Medical Imaging/Radiology
- Nuclear Medicine
- Radiation Oncology
- Research laboratories using radioactive substances or sealed sources

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- All departments whose staff may have cause to enter facilities where radiation sources are used.

4. RESPONSIBILITIES**4.1 Chief Executive**

The Chief Executive holds the District's authorisation to deal with radiation sources and therefore has management responsibility for those sources along with control over who may use them. Under the *Protection from Harmful Radiation Act 1990* (NSW) they are deemed to be the Responsible Person.

4.2 District Radiation Safety Officer

The *Protection from Harmful Radiation Regulation 2013* (NSW) provides for the appointment of a Radiation Safety Officer (RSO) to advise and assist an employer in fulfilling their responsibilities for radiation safety.

4.3 Hospital Managers

Hospital Managers are responsible for the implementation of the Radiation Management Plan within their facilities. The District RSO and Hospital RSOs are available to advise and carry out these functions as per Paragraph 4.5.

The Hospital Manager must:

- Ensure that a Source Security Plan is prepared, approved and resourced for any security-enhanced source within the Hospital, in compliance with the Code of Practice for the Security of Radioactive Sources (ARPANSA RPS-11).
- Ensure that each Source Security Plan is implemented and complied with.
- Ensure that a Source Transport Security Plan is prepared, approved and resourced for any security enhanced source to be shipped, in compliance with RPS-11.
- Ensure that the Source Transport Security Plan is implemented and complied with.
- When a Category 1 or 2 source is to be transferred to the Hospital, ensure that the NSW Environment Protection Agency (EPA) has approved the transfer of the source.
- Ensure that the written approval of the NSW EPA is obtained before disposing, or transferring ownership, of any security enhanced source.
- Immediately notify the NSW EPA on becoming aware of any loss of radioactive material from the Hospital.
- If a security enhanced source is lost, stolen, intentionally damaged or accessed without authority, immediately notify both the NSW EPA and NSW Police.
- Provide a written report of any incident involving any breach of a security measure (including loss or theft of a source) to the NSW EPA within 7 days of the incident.

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Source Security Plans or Source Transport Security Plans must be endorsed by an assessor accredited for this purpose by the regulatory authority every five years and submitted to the regulator within the time-frame mandated by the Protection from Harmful Radiation Act

4.5 Hospital Radiation Safety Officers

A Hospital Radiation Safety Officer (HRSO) is appointed to advise and assist a hospital (or group of hospitals) in fulfilling the legislative responsibilities for radiation safety and to monitor compliance of Departments within the Hospital with the regulations, licence conditions and Radiation Management Plan.

The Radiation Safety Officer will:

- Assign a security category to each radioactive source or aggregation of radioactive sources based on the methodology specified in Schedule B of RPS-11.
- Obtain the written approval of the regulatory authority in the jurisdiction of origin before the ownership of a security enhanced source is transferred.
- Obtain the written approval of the regulatory authority before any security-enhanced source is disposed of.
- In the event of any unauthorised access to a security enhanced source, or the theft or loss of any other radioactive material, prepare a report for the Hospital Manager.
- Approve signage and access control measures for any controlled or supervised areas where radiation exposure in excess of background levels may occur.

4.6 Department Managers

Department Managers have delegated authority for the management of radiation safety within their department.

For departments in which staff use radiation sources, the specific responsibilities include:

- Ensuring areas designated for storing radiation sources (including waste stores) are properly marked with approved warning signs, and regulations regarding their use are posted at access points.
- Ensuring that access to any storage area is restricted by use of doors, locks, barriers and signs, and that sources are secured against unauthorised removal and tampering.
- Ensuring that controlled and supervised areas are designated, and administrative controls established, such that access to radiation sources is restricted to authorised staff through work procedures, training and installation of warning signs and labels.
- Ensure that all radiation apparatus are either stored securely or disabled when not in use.
- Ensuring that all radiation sources used or stored within a facility are recorded in a register.

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- Ensuring that arrangements are made promptly for the safe management of and control over radiation generators and radioactive sources once it has been decided to take them out of use.
- Implementing any Source Security Plan or Source Transport Security Plan covering sources for which they have been delegated responsibility.
- Ensuring that, following any escalation of the threat level, the outcomes of any Source Security Plan are able to be escalated to those corresponding to the next highest threat level within the time specified in the Plan.
- Ensuring that no person deals with a security enhanced source unless they have a legitimate reason for doing so and have either undergone a security background check in accordance with the requirements specified in RPS-11 or are accompanied at all times by an authorised person.
- Ensuring that any unauthorised access to a security enhanced source, or any loss or theft of radioactive material is reported to both:
 - The Hospital Radiation Safety Officer
 - The Hospital General Manager

4.6 Radiation Safety Supervisor

A Radiation Safety Supervisor (RSS) is nominated to assist a Department Manager by providing a Radiation Safety service for a particular radiation-using Department. The RSS should be a Medical Physicist with accreditation/certification in the speciality of the Department:

- Radiology: Diagnostic Imaging Medical Physicist (Radiology speciality)
- Radiotherapy: Radiation Oncology Medical Physicist
- Nuclear Medicine: Diagnostic Imaging Medical Physicist (Nuclear Medicine speciality).

Within their host Department, the RSS will assist the Department Manager with:

- Preparing a Source Security plan for any security enhanced radioactive source managed by the Department.
- Revising the Source Security Plan in the event that there is a change in the environment in which the dealing occurs - including new credible threat information.
- Preparing a Source Transport Security plan for any source that must be shipped by the Department.
- revise the Source Transport Security Plan in the event that there is a change in the environment in which the dealing occurs - including new credible threat information.
- Ensuring that only authorised persons undertake the escort of radioactive substances when being transported within an organisation.

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- Ensuring that when radioactive substances are transported by road, the transport is in accordance with the legal requirements as per Section 17 of the *Protection from Harmful Radiation Regulation 2013* and the *Safe Transport of Radioactive Material* (ARPANSA C-2).
- Ensuring that any radiation apparatus is permanently disabled before being disposed of.
- Ensuring that, upon completion of a technical service, any security measures associated with a security enhanced source that may have been temporarily disabled in order to perform the service have been re-enabled or, if they are not able to be re-enabled, the course of action required by the Source Security Plan in the event that security features are not able to be re-enabled is followed.

4.9 Radiation Workers

Employees and others working in areas where radiation and/or radioactive substances are utilised will:

- ensure that radiation sources are stored safely and securely when not in use.
- ensure that access controls are maintained and that unauthorised access to controlled or supervised areas are reported to Department Managers.
- when dealing with a radioactive source, be able to account for the whereabouts of that source at all times.
- be alert to suspicious behaviour in relation to any radiation source and its immediate environs.
- report any such suspicious behaviour to the Department Manager, Radiation Safety Supervisor or Radiation Safety Officer.

4.10 All Staff

All staff will comply with all LHD radiation safety procedures and facility business rules and safe work practices. They will:

- attend site-specific training in radiation safety and source security if required.
- not enter controlled areas without supervision by authorised staff.
- undergo any security checks required by Source Security Plans or Source Transport Security Plans that cover their activities.
- not interfere with, remove, alter, damage or render ineffective, any security measures provided to secure a radioactive source except for legitimate source removal, transport or technical service as covered in the Source Security Plan or Source Transport Security Plan.
- not abandon any radiation source without lawful excuse.

4.11 Contractors

Contractors assigned work near or around radiation sources will comply with all LHD radiation safety procedures and facility business rules and safe work practices. They will:

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- attend site-specific training in radiation safety and source security if required.
- not enter controlled areas without supervision by authorised staff
- undergo any security checks required by Source Security Plans or Source Transport Security Plans that cover their activities.
- provide copies of Radiation User Licences to the site Radiation Safety Officer on request

5. DEFINITIONS

- **ARPANSA:** The Australian Radiation Protection and Nuclear Safety Agency.
- **EPA:** The NSW Environment Protection Authority.
- **Code of Practice:** The ARPANSA Security of Radioactive Sources (RPS-11).
- **Controlled area** A defined area in which specific protection measures and safety provisions are or could be required for controlling exposures or preventing the spread of contamination in normal working conditions and preventing or limiting the extent of potential exposures.
- **Fixed security enhanced source** means a radioactive source located in a device or container that, in the normal course of its use, is permanently secured to a structure and intended to be immobile.
- **Ionising radiation:** radiation capable of producing ions in its passage through matter.
- **Mobile security enhanced source** means a radioactive source located in a device or container that, in its normal course of use, is intended to be capable of being moved in a limited way from place to place (such as a large machine on wheels designed to be able to be repositioned by a person within a room in a facility).
- **Radioactive substance:** any substance emitting ionising radiation.
- **Security** The prevention of, detection of, and response to, criminal or intentional unauthorised acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities.
- **Security enhanced source:** a sealed radioactive source (or an aggregation of sealed radioactive sources) that is a category 1, 2 or 3 source as determined by reference to schedule B of the Code of Practice (Reference 5).
- **Supervised area:** A defined area not designated as a controlled area but for which occupational exposure conditions are kept under review, even though specific protection measures or safety provisions are not normally needed.

6. DOCUMENTATION

- [Radiation Accident Incident Reporting Form F066](#)
- Site Radioactive Substances Registers
- Site Sealed Source Registers
- Site Source Security Plans

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7. REFERENCES

- [1] *Protection from Harmful Radiation Act 1990* (NSW)
- [2] *Protection from Harmful Radiation Regulation 2013* (NSW)
- [3] NSW Health Policy Manual: Protecting People and Property - NSW Health Policy and Standards for Security Risk Management in NSW Health Agencies
- [4] ARPANSA Code for the Safe Transport of Radioactive Material RPS C2 (2019)
- [5] ARPANSA Radiation Protection Series No. 11 – Code of Practice for the Security of Radioactive Sources (2019)
- [6] NSW Ministry of Health Policy Directive PD2020_047 - Incident Management Policy
- [7] SESLHDPD/296 - Radiation Safety – Ionising radiation
- [8] SESLHDPR/212 - Health, Safety and Wellbeing Risk Management

8. VERSION and APPROVAL HISTORY

Date	Version	Version and approval notes
March – May 2006	Draft 1-2	Area Radiation Safety Officer in conjunction with the Area Radiation Safety Committee
May 2006	0	As above, approved by the Executive Management Committee for release 23 May 2006
October 2011	1	Rebadged and reviewed by Richard Smart, RSO
September 2015	2	
November 2016	3	Review undertaken and updates endorsed by Executive Sponsor
November 2019	4	Review undertaken and updates endorsed by Executive sponsor
30 October 2024	5.0	Major review. Mandates Radioactive source security as required by ARPANSA documents RPS C-5, C-2 & 11 and NSW EPA Regulatory document <i>Protection From Harmful Radiation</i> . Approved at SESLHD Patient and Safety Quality Committee.