

Policy: Radiation safety

Purpose

To provide a framework to facilitate the safe and effective use of radiation within the Australian National University (the University).

Overview

The University is an organisation of cultural significance responsible to the Australian community for research and teaching activities across the broad scope of sciences, social sciences and humanities. In contributing to this objective, the radiation workers at the University need to safely use ionising radiation and non-ionising radiation during their research endeavours.

Scope

This Policy relates to the University's '[Policy: Work Health and Safety](#)' and applies across the University.

Policy statement

1. The University is committed to:
 - providing a workplace that is safe and healthy for staff, students, contractors and visitors
 - minimising the environmental impact from any University undertaking with radiation materials, apparatus, or facilities
 - controlling ionising radiation hazards using the hierarchy of controls to 'as low as reasonably achievable (ALARA)' and referring to the best international practice
 - complying with the [Work Health and Safety Act 2011](#), [Australian Radiation Protection and Nuclear Safety Act 1998](#) and regulations and licence conditions, the [Nuclear Non-Proliferation \(Safeguards\) Act 1987](#) and regulations, and Australian Standards, Codes of Practice and relevant guidance material; and
 - applying the fundamental principles of protection from ionising radiation which are:

Justification	No radiological practice should be adopted unless it is assessed to produce a net benefit to the society.
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Optimization of protection	Regarding a particular radiation source, the magnitude of the individual exposure and the number of people exposed should be kept as low as reasonably achievable.
Limitation: Exposure standards and dose limits	Any exposure to radiations must comply with legislated exposure guidelines.

RPS G-2.

- for Non-Ionising Radiation protection “*Precautionary Principles*” should be discussed.

2. Commitment to continuous improvement:

The University is committed to continually improving its radiation-management systems through the following strategies:

- All potentially hazardous research, teaching or operational work should only be undertaken after a [risk assessment](#) of the work is completed and the responsible Dean or Director or Delegate is satisfied that the hazards associated with the work are controlled as far as is reasonably achievable.
- Provide an adequate, responsible financial budget, including consideration for radiation monitoring, calibration of devices, suitable compliant facilities, relevant training and prescribed protective equipment.
- Provide sound [workplace planning, design and operation](#). [New work practices](#) must be approved by the [Radiation/ Laser Safety Officer](#) and [University's Radiation Safety Advisory Group](#). The Local WHS Committee may be part of the approval process and must be notified of any new or changes to current hazardous operations.
- Implement effective arrangements for staff consultation including a network of Radiation Safety Officers (RSO's) reporting through the Local WHS Committees.
- Provide administrative resources for advice and support, including the University's Radiation Safety Advisory Group.
- Provide information, instruction, training/awareness and supervision for staff, students and visitors, as applicable. Any person who deals with (or maintains) controlled materials or apparatus must be appropriately trained and have their competency recorded and documented.
- Provide relevant safe-work procedures and guidelines for the use of ionising radiation (radioisotopes, machines), lasers, and non-ionising radiation sources (ultraviolet, intense visible, infrared, microwave, and radio frequencies).
- Maintain an inventory of significant radiation items (controlled materials and apparatus) as required by regulatory authorities.

- Report to the regulatory authorities according to licence conditions.
- Dispose of radioactive waste and radiation-controlled apparatus according to approved methods and licence conditions, following the approvals by the [Australian Radiation Protection And Nuclear Safety Agency](#) (ARPANSA).
- Provide a notification system for incidents and hazards, including follow-ups to reduce any unacceptable risk revealed by an incident.
- Report notifiable incidents to the regulator as soon as practicable and as required by licence conditions and legislation.
- Provide health monitoring, rehabilitation and counselling when necessary.
- Provide an audit system including appropriate management action in cases of non-compliance.
- Uphold statutory legislation, regulations, licence conditions, national standards (including the [ARPANSA Radiation Protection Series](#) and [Radiation Health Series](#)), codes of practice, and the University policies and procedures.

Responsibilities

3. Each Dean or Director at a research school or college, which has radioactive sources or apparatus, is responsible for implementing research, teaching and operational work in their local area and workplace that:

- is safe and healthy for staff, students, contractors and visitors
- identifies and controls the risk to the environment
- complies with the relevant legislation, University licence conditions and delegations
- appoints a Radiation Safety Officer (RSO) at the research school or college that has radioactive sources of apparatus.

4. All Supervisors are responsible for:

- ensuring their workplace is safe and healthy for all staff, students, contractors and visitors
- ensuring the staff, students and contractors are provided appropriate induction, training, advice and supervision
- providing documented safe-work procedures and ensuring the staff, students and contractors they supervise understand and observe them
- reporting any radiation incidents, exposures, hazards or Work Health and Safety (WHS) concerns within their jurisdiction.

5. Radiation Safety Officers are responsible for:

- Providing advice on matters related to radiation safety and to maintain a high standard of radiation safety

- assisting with regulatory and licensing matters, specially maintaining the Source Inventory Workbook (SIWB).
- liaising with supervisors, staff, students, visitors, Health and Safety Representatives (HSRs), and the Work Environment Group (WEG) on radiation safety matters
- reviewing local procedures, induction and training requirements for users dealing with radiation
- ensuring a system of personal radiation monitoring is in place and used correctly and the results are available to radiation workers when requested
- assessing and providing advice on potential exposures to radiation
- inspecting radiation monitoring devices and arranging testing and calibration as required
- inspecting areas and installations where radiation is used or stored, and providing reports and recommendations to management
- contributing to the safe management of radioactive wastes and equipment
- facilitating reporting of radiation incidents, exposures, or hazards within their jurisdiction
- assisting with the investigation of any incident or dangerous occurrence within their jurisdiction.

6. Staff, students, contractors and visitors are responsible for ensuring that their actions or omissions do not generate or increase a risk to the health and safety of themselves or others. They must:

- conduct or review risk assessments before starting work if applicable
- observe and practise safe-work procedures at all times
- use equipment according to safe-work instructions
- report incidents, exposures, hazards or WHS concerns within the workplace immediately to supervisor, RSOs or HSRs.

Further Information

7. For further information on the University's radiation management system and its operation, see:

- University's Procedure: Radiation Safety.
- Source and Facilities ARPANSA Licence Conditions.

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