



POSITION DESCRIPTION

Position Title:	Dosimetry Technologist
Cluster / Business Unit / Division	Nuclear Safety, Security & Stewardship/ High Reliability/ Work Health & Safety (WHS)
Section or Unit:	Human Health Monitoring
Classification:	Band 5/6 Linked Role
Job Family:	Professional/Technical
Position Description Number:	PD-2277
Work Contract Type:	Full Time
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the Dosimetry Technologist is to support the delivery of ANSTO personal dosimetry services. This includes knowledge and application of ANSTO's internal dosimetry (i.e. Whole-Body and Thyroid Monitoring, bioassay procedures, air monitoring) and external dosimetry (i.e. Thermo-luminescent Dosimetry and Electronic Personal Dosimeters) techniques. The role requires performing variety of measurements to ensure the accurate formal measurement and record keeping of ANSTO staff members, contractors and visitors personal ionising radiation exposure.

The Dosimetry Technologist is a seasoned technical professional capable of resolving a wide range of issues in creative ways. The position holder is expected to organise and implement quality management systems and other capacity building activities to promote excellence in personal dosimetry services. The role contributes technical knowledge, skills and experience to ANSTO and other ANSTO activities as required including the Commonwealth Disaster Response Plans (COMDISPLAN), and IAEA Response and Assurances Network (RANET).

ORGANISATIONAL ENVIRONMENT

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers and apply new technologies to provide real-world benefits. Our work improves human health, saves lives, builds our industries and protects the environment. ANSTO is the home of Australia's most significant landmark and national infrastructure for research. Thousands of scientists from industry and academia benefit from gaining access to state-of-the-art instruments every year.

Nuclear Safety, Security and Stewardship incorporates High Reliability (Safety), Nuclear Security and Safeguards and the Nuclear Stewardship science and technology platform. The Group provides critical enabling functions for ANSTO ensuring operational compliance for a range of regulators as well providing mandated services to federal and state government departments and agencies.

ANSTO is committed to delivering excellence in safety performance based on ANSTO's core values. The High Reliability team is comprised of professionals that provide WHS, Radiation Protection, Occupational Health and Hygiene and Emergency subject matter expertise and services to the organisation and our external stakeholders. This includes supporting the Visiting Ships Panel (Nuclear) and working with the Department of Defence in its program to acquire a nuclear-powered submarine capability. Continuous improvement to best practice standard across the organisation is embedded at the local level through the programs put in place by High Reliability support functions.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities Band 5

- Lead one of the human health monitoring capability lines (internal dosimetry, external dosimetry, equipment, quality management, personnel). Provide mentorship and technical guidance to

technicians, technologists, clients, and scientific visitors.

- Supervise staff, manage budgets, and optimise resources. Apply innovative methods, techniques, and products to enhance work practices, systems, and processes, ensuring high-quality services and outcomes.
- Assist in managing projects and coordinating resources to achieve objectives across multiple projects or tasks. Collaborate with stakeholders and provide ongoing support to project managers throughout the project lifecycle.
- Support the operation, calibration, and maintenance of equipment and services associated with Personal Dosimetry Services, including in-vivo and in-vitro capabilities, external dosimetry, electronic personal dosimetry, and air sampling for radioactivity measurement.
- Perform measurements, data processing, and statistical analysis. Develop and update databases and electronic tools, prepare reports on results, and identify trends and deviations. Suggest procedures to minimise measurement uncertainty.
- Maintain exposure records and quality documentation for regulatory and audit purposes. Ensure compliance with ANSTO Radiation Protection standards and assist in the preparation of procedures and work statements that align with regulatory requirements and international best practices.
- Build and maintain relationships with national and international personal dosimetry services. Engage in knowledge sharing, benchmarking, and regular inter-comparison and auditing activities.
- Maintain safety and security training, ensure compliance, and integrate safety and security into every task. Take necessary steps to halt work if it compromises safety or security.
- Perform additional duties as required, including covering for staff during periods of leave.

Key Accountabilities Band 6

- Contribute to the technical excellence and direction of personal dosimetry services, ensuring high-quality services consistent with ISO 17025 standards.
- Resolve complex technical issues with frequent independent decision-making. Interact with clients and stakeholders at all levels to provide solutions and continuously improve human health monitoring operations.
- Develop, implement, and improve technical documents, policies, and procedures to ensure compliance with national and international standards.
- Contribute to research and development initiatives to maintain the excellence of ANSTO's personal dosimetry program. Apply cutting-edge technologies to enhance radiation protection practices and industry performance.
- Manage projects and coordinate resources to meet objectives. This includes defining scope, estimating work, collaborating with stakeholders, and providing ongoing support to clients.
- Work closely with clients to understand their needs and adapt solutions to optimise business outcomes. Influence and collaborate with ANSTO platform managers, operational leaders, and workers to determine priorities and service provision for operational dosimetry.
- Perform additional duties as required, including covering for staff during periods of leave.

Decision Making

- The position works within a framework of legislation, international guidance, policies, professional standards and resource parameters. Within this framework the position has independence in determining how to achieve objectives.
- The ANSTO values, organisational corporate plan, business plan, operational excellence program, the WHS Strategy, the Radiation Protection strategy, RPS strategic operational objectives, and WHS and RPS Business Management Systems provide the context for the position.
- The position is fully accountable for the accuracy, integrity and quality of the content of measurement and advice provided to staff and managers and is required to ensure that decisions are based on sound evidence and accurate interpretation of measurements. At times may be required to make effective judgements under pressure or in the absence of complete information or expert advice

- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Key Challenges

- Maintain a current knowledge of relevant state, commonwealth and international standards and regulations and implement changes as required.
- Maintain knowledge of international best practice in personal dosimetry and also of developments in relevant technology, including establishing and fostering professional networks in order to access and share information.
- Maintain required safety and security training, assure safety and security compliance; make safety and security an integral part of every task, including taking the necessary steps to stop work if continuing the job is unsafe or compromises security.
- Maintain exposure records and quality documentation within the Personal Dosimetry Services for regulatory and quality audit purposes.
- Participate in the development and implementation of projects within Human Health Monitoring.
- Develop and review procedures to be incorporated into the QA Business Management System. Ensuring that procedures reflect best and/or actual practice and are compliant with the relevant regulatory requirements and standards.
- Optimise customer service, response times and delivery efficiencies.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager, Work Health & Safety	<ul style="list-style-type: none"> • Receive guidance and direction • Provide expert, authoritative and evidence based advice
Manager, Radiation Protection Services	<ul style="list-style-type: none"> • Receive guidance and direction • Provide expert, authoritative and evidence based advice
Human Health Monitoring Leader	<ul style="list-style-type: none"> • Receive guidance and direction • Provide expert, authoritative and evidence based advice • Recommend and gain endorsement for plans and goals and other initiatives
Personal Dosimetry Officer	<ul style="list-style-type: none"> • Receive guidance and direction • Develop performance objectives consistent with business plans and objectives • Monitor trends, performance and progress against the agreed team objectives plan and evaluate further support which may be required to ensure delivery against the plan.
Dosimetry Technician	<ul style="list-style-type: none"> • Provide leadership, guidance and support • Set performance requirements and manage performance and development • Engage to monitor trends, performance and progress against the agreed team objectives plan and evaluate further support which may be required to ensure delivery against the plan
High Reliability team members	<ul style="list-style-type: none"> • Receive expert advice and analysis on all radiation protection, occupational hygiene and work health safety matters and staff issues • Encourage and contribute to group decision making processes, planning and goals • Collaborate and share accountability and resources • Negotiate and resolve conflicts

Internal clients	<ul style="list-style-type: none"> Provide specialist guidance and advice on personal radiation dosimetry services, as required, in collaboration with Occupational Hygienists and Operational Health Physicists.
External	
External clients	<ul style="list-style-type: none"> Provide specialist guidance and advice on personal radiation dosimetry services, as required, in collaboration with Occupational Hygienists and Operational Health Physicists.
Regulators - e.g.: Comcare, ARPANSA.	<ul style="list-style-type: none"> Reporting and expert advice
Network with subject matter experts, facilitators, existing and potential clients and industry members.	<ul style="list-style-type: none"> Comparison of best practice in personal radiation dosimetry
Suppliers and contractors	<ul style="list-style-type: none"> Purchase laboratory consumables, chemicals and equipment, negotiate prices for equipment and repairs. Liaise with suppliers to troubleshoot and identify faults and arrange repairs Contractor supervision, as required.

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Leader Human Health Monitoring
Direct Reports	PD-0960 Personal Dosimetry Office/ Dosimetry Expert
Indirect Reports	Provides technical supervision to Dosimetry Technician
Financial Data (2022/2023)	
Revenue / Grants	Nil
Operating Budget	Nil
Staffing Budget	Nil
Capital Budget	Nil
Assets	Nil
Special / Physical Requirements	
Location:	Primary: Lucas Heights. Secondary: Camperdown/Clayton. Working in different areas of any ANSTO campus as needed.
Travel:	May be required travel to ANSTO sites from time to time. Some travel nationally and internationally for conferences and potential collaborations with other occupational hygiene and personal dosimetry services.
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Public speaking Wearing personal protective equipment for the handling of hazardous and/or radioactive materials

Radiation areas:	Perform duties in an area where radioactive materials are handled under tightly controlled safety conditions Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions Perform duties with and in an area where hazardous chemicals or materials are handled
Hours:	Willingness to work extended and varied hours based on operational requirements After hours work may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Obtain and maintain appropriate federal government clearance (potentially up to Negative Vetting 1).
Linked Role:	The Transition from Band 5 to Band 6 is not automatic and requires a full written submission, in addition to the attached checklist, to demonstrate how the employee meets the requirements. Transition will only occur following approvals from the Manager Work Health and Safety and General Manager High Reliability.

Workplace Health & Safety

Specific role/s as specified in AP-2362 of the ANSTO WHS Management System	All Workers Officer (definitions found in appendix 1 of AG-2362) Group Executive / General Manager Managers / Leaders / Supervisors Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties
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ORGANISATIONAL CHART

Refer to published Organisational Chart

KNOWLEDGE, SKILLS AND EXPERIENCE

Band 5 level

1. Tertiary qualifications in relevant engineering or science discipline or professional Health Physics qualifications (required)
2. Demonstrated experience in personal radiation dosimetry services and monitoring equipment (required).
3. Extensive experience with the use and calibration of equipment.
4. Experience in implementing and applying radiation protection practices.
5. Highly developed analytical/problem solving skills.
6. Current knowledge of national and international standards and best practice in personal radiation dosimetry including quality management systems for dosimetry laboratories.
7. Organisational skills and meticulous approach to work with the ability to plan and organise tasks effectively for self.
8. Strong customer focus with emphasis on the management of client relationships.
9. Demonstrated ability to adhere to procedures, regulations, safety, and quality requirements.

In addition to the required knowledge skills and experience above the Band 6 level will require:

1. Obtain recognised professional certification with the Australasian Radiation Protection Society (ARPS)
2. Obtain recognised professional certification with the Australasian Radiation Protection Accreditation Board (ARPAB) (desirable)

Linked Role Transition

Transition to the higher band within the linked role is not automatic and ability to perform Band 6 accountabilities will need to be demonstrated and assessed. This can be done by completing the attached form and completing a full written submission demonstrating and justifying how an employee meets the transition requirements.

VERIFICATION

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

Line Manager		Delegated Authority	
Name:	Carmen Naylor	Name:	Karen Wolfe
Title:	Leader, Human Health Monitoring	Title:	General Manager
Signature:		Signature:	
Date:		Date:	

**Dosimetry Technologist (PD-2277)
Band 5 to Band 6 Transition Checklist**

Name:	
Band 6 Commencement Date:	
Assessment Date:	

Written submission demonstrating and justifying how the employee meets requirements must also be attached.

Requirements for transition	Met Criteria
Undertake band 6 accountabilities at a technical expert level and independently without supervision or guidance	<input type="checkbox"/> Yes <input type="checkbox"/> No
Creating and implementing methods, techniques, and products to improve work practices, systems, and processes within facilities and practices they support to ensure high-quality services and outcomes.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Working consultatively and collaboratively with project leaders, clients, and high reliability staff to establish productive working relationships and foster the communication of experiences and knowledge across different divisions. This can include guiding and coordinating other dosimetry technologists, health physicists and health physics surveyors conducting work in their operational or capability area.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Maintaining knowledge of industry best practice and technology developments. This can include representing the organisation as a subject matter expert at national and international forums.	<input type="checkbox"/> Yes <input type="checkbox"/> No

Demonstrated ability to independently and responsibly perform Band 5 accountabilities and apply required knowledge, skills and experience for the band 6 position including:	
Promoting and fostering safety culture with evidence of continuous improvement and understanding of radiation safety measures. This may include challenging established ways of working in favour of more optimal approaches.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Sharing industry best practice and technology developments with team members.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Developing and reviewing radiation protection training to ANSTO workers and clients or external stakeholders. This can include area or task specific training.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Effective management and maintenance of quality assurance programme for personal dosimetry services.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Preparing comprehensive technical reports making recommendations to senior management and/or external bodies.	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach written submission demonstrating and justifying how the employee meets each of the above requirements including the key accountabilities in the position description for band 6.

Manager Recommendation

I have reviewed the employee's competence in accordance with Linked Role PD-2277 and certify that the employee meets all requirements for transition and recommend transition from Band 5 to Band 6 be endorsed as demonstrated in the attached written submission detailing how the employee meets each of the requirements.

Name & Title:			
Signature:		Date:	

Senior Manager

I have reviewed all information and approve transition from Band 5 to Band 6.

Name & Title:			
Signature:		Date:	
Effective date of transition:			