Australian Government

ANSTO
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POSITION DESCRIPTION

Position Title:	Radiation Protection Technologist
Cluster / Business Unit / Division	Nuclear Safety, Security and Stewardship / High Reliability
Section or Unit:	Radiation Protection Services
Classification:	Band 5/6 linked role
Job Family	Technical
Position Description Number:	PD-2358
Work Contract Type:	Technical
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The Radiation Protection Technologist is a seasoned technical professional capable of resolving a wide range of issues in creative ways. Radiation Protection Technologist role is responsible for developing, implementing, and evaluating Fundamental Inputs to Capability across one of four primary lines of development: Training, Equipment, Personnel, Doctrine and Concepts. The position holder is expected to organise and implement training and other capacity building activities to promote excellence in the practice of radiation protection for planned, existing and emergency exposure situations.

The role contributes technical knowledge, skills, and experience to ANSTO and other ANSTO activities including the Commonwealth Disaster Response Plans (COMDISPLAN), IAEA Response and Assistance Network (RANET), Radiation Consultancy and Training Services, radiation protection and operational health physics activities as required.

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 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.

The Radiation Protection Services group provides radiation protection advice and assurance service to the whole of ANSTO. This includes radiological assurance monitoring, radiation protection training, support, and leadership to support emergency preparedness and related regulatory relationships. The group also works closely with ANSTO Radiation Services to provide the radiation protection training and other services to external stakeholders on a commercial basis.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

The key accountabilities for the Band 5 position include:

- Effective leadership of one of the radiation protection services capability lines of development: Training, Equipment, Personnel, Doctrine and Concepts. Mentor and provide technical and professional guidance to health physicists, technicians, technologists, and clients.
- Effective leadership and supervision of staff, budget, and resources. Apply methods, techniques, and products to improve work practices, systems, and processes to ensure high-quality services and outcomes.
- Contribute technical capability for small and medium projects related to radiation protection for planned and emergency exposure situations.
- Contribute offsite response capability in support of Commonwealth Plans and arrangements (COMDISPLAN) as a member of an ANSTO Field Assistance Team across a wide range of geographic environments to resolve national and international challenges.
- Apply radiological safety technical excellence to a variety of radiological control problems within the safety envelope of the Radiation Protection Advisor.
- Support stakeholders towards safe handling, transportation and disposal of radioactive material using current ANSTO policies, procedures, ARPANSA legislation and IAEA technical documents (TECDOC) within the safety envelope of Radiation Protection Advisors.
- 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.
- Prepare technical basis documents, policies, and procedures in areas including (but not limited to): safe-work methods, decontamination procedures, and radiological emergency procedures.
- Support radiation protection Research and Development and apply cutting edge technologies to enhance the ANSTO radiation protection practice, performance and where appropriate to benefit industry.
- Support the management of projects and coordination of resources to achieve objectives of multiple projects or tasks within projects. This will include collaborating with other project stakeholders and providing ongoing information and support to project managers throughout the project.
- Perform optimisation studies to identify improvements in local radiological protection programs for new and existing processes, working with the Radiation Protection Adviser
- Deliver training in aspects of radiation protection to ANSTO workers and support the delivery of commercial radiation safety training as available.

In addition, the key accountabilities for a Band 6 position include:

- Contribute radiological safety technical excellence, assistance, and guidance on a variety of radiological control problems, recommending corrective improvements (including changes in the work environment) where necessary.
- Influence stakeholders towards safe handling, transportation and disposal of radioactive material using current ANSTO policies, procedures, ARPANSA legislation and IAEA technical documents (TECDOC) within the safety envelope of Radiation Protection Advisors.
- Develop, implement, and improve innovative technical basis documents, policies, and procedures in areas including (but not limited to): inspection standards, safe-work methods, decontamination procedures, and radiological emergency procedures.
- Contribute to radiation protection Research and Development to ensure and maintain the excellence of ANSTO's radiation protection program in line with international best practice; may also develop and apply cutting edge technologies to enhance the ANSTO radiation protection practice, performance and where appropriate to benefit industry.

- Manage projects and coordinate resources to achieve objectives of multiple projects or tasks within projects. This will include defining scope and estimating work, collaborating with other project stakeholders, and providing ongoing information and support to clients throughout the project.
- Influence and work together with the client base to understand and adapt solutions to meet their needs whilst implementing to optimise business outcomes.
- Collaborate with and influence ANSTO platform managers, operational leaders, supervisors and workers in partnership with Radiation Protection Services operational leaders to determine work priorities and service provision of operational health physics as required.

Transition Criteria

To allow transition from Band 5 to Band 6, or direct appointment to Band 6, evidence must be provided for the following criteria:

1. 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.
2. 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 radiation protection technologists, health physicists and health physics surveyors conducting work in their operational or capability area.
3. 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.

In addition, evidence must be provided for at least three (3) of the following criteria:

1. 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.
2. Sharing industry best practice and technology developments with team members.
3. Developing and reviewing radiation protection training to ANSTO workers and clients or external stakeholders. This can include area or task specific training.
4. Effective leadership of an ANSTO Field Assistance Team across a wide range of geographic environments to resolve national and international challenges.
5. Preparing comprehensive technical reports making recommendations to senior management and/or external bodies.

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 position determines key work priorities for their team within the context of agreed work plans and will consult with the Radiation Protection Services Manager or WHS Manager on complex, sensitive or major issues that may have a significant impact on ANSTO, the customer group or High Reliability.

- 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.

Key Challenges

The key challenges for the position include:

- Contribute to the organisation strategy though direct operational and tactical efforts delivering meaningful effects that directly influence the course of action to determine achievement of service standards.
- Conceptualising new products and processes as required by divisional objectives often in an environment of competing demands across radiation protection fundamental inputs to capability lines of development.
- Team leader responsible for delivering health physics surveyor capability line of development outputs and results through scheduling, work allocation and performance monitoring.
- Apply knowledge and skills across locations within country, multiple countries, continental region, and all regions of the world as required by ANSTO.
- Innovate with a focus on improvements to modify and improve radiation safety technical basis documents, training, and assurance products as framed by internal, external, and internal divergent interests.
- Communicate to influence radiation protection capability effects without instructions where outcomes of acceptance are achieved through discussion and compromise.
- Directly contribute to the tactical impact of radiation protection training across ANSTO, State and Territory, Commonwealth, and international partners as required.
- Perform investigation root cause analysis to improve safety systems within the safety envelope of Radiation Protection Advisors and Health Physicists.

KEY RELATIONSHIPS

All ANSTO areas that utilise radiation and/or radioactive or nuclear material. The Radiation Protection Technologist works closely with various Subject Matter Experts, including Emergency Management, Radiation Services, Regulatory Affairs, Occupational Health, WHS, Nuclear Stewardship, Asset Management, and others.

External stakeholders include the Australian Defence Force, Crisis Coordination Centre (Home Affairs), State and other Australian emergency response organisations, the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), regional Government partners and the International Atomic Energy Agency (IAEA).

Who	Purpose
Internal	
Radiation Protection Services Manager	• Receive guidance and direction • Provide expert, authoritative and evidence-based advice • Staff engagement and quality recruitment • Negotiate and report on budgets and resources consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives
Radiological Emergency Manager	• Provide support in emergency preparedness and response • Provide expert, authoritative and evidence-based advice for radiological and nuclear emergency preparedness plans • Collaborate and share accountability and resources • Contribute to group decision making processes, planning, and goals

Leader Radiation Protection Operations	• Receive guidance and direction • Provide expert, authoritative and evidence-based advice. • Staff engagement and quality recruitment • Negotiate and report on budgets and resources consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives.
Leader Radiation Safety Lifecycle	• Receive guidance and direction • Provide expert, authoritative and evidence-based advice. • Staff engagement and quality recruitment • Negotiate and report on budgets and resources consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives.
Leader Health Physics Surveyors	• Receive guidance and direction • Provide expert, authoritative and evidence-based advice • Staff engagement and quality recruitment • Negotiate and report on budgets and resources consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives.
RPS team members	• Provide expert advice and analysis on all radiation protection 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
High Reliability team members	• Provide expert advice and analysis on all work health and 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
ANSTO Radiation Services	• Work closely to support commercial agreements with external stakeholders • Provide expert advice and analysis on all radiation protection matters
Nuclear Stewardship	• Liaise with radioanalytical laboratories participating in the IAEA ALMERA network to leverage current and emerging technology and best practice in radiation detection, identification and measurement for operational and emergency use.
ANSTO undertakings	• Support operational implementation of ANSTO's radiation protection roles during planned, existing and emergency exposure situations; • Develop, maintain and enhance their radiation protection arrangements.
ANSTO Communications	• Assisting ANSTO Communications develop guidance and advice for ANSTO and others on public communications in nuclear and radiological incidents and emergencies and implementing radiation protection outreach activities.

External	
Senior Commonwealth and State/Territory personnel	• Coordinate and cooperate on radiation protection requirements for planned, existing and emergency exposure situations in line with state, national and international plans, and guidance.
ARPANSA	• Reporting and advice subject to approval by Senior Management
IAEA	• Coordinate and cooperate in radiation protection requirements for planned, existing and emergency exposure situations in line with national and international plans and guidance.

POSITION DIMENSIONS

Staff Data for Band 5 and 6	
Reporting Line	Depending on the specific recruitment position could report to one of the following: Health Physics Surveyor Leader Radiation Protection Operations Manager Radiation Safety Lifecycle Manager, or Radiological Emergency Manager
Direct Reports	Span of control up to seven
Indirect Reports	Radiation Protection Technologist supports Radiation Services Manager, Radiological Emergency Manager, Leader Radiation Protection Operations, Leader Radiation Safety Lifecycle, Radiation Protection Advisors achieve Radiation Protection Services and ANSTO strategic objectives.

Special / Physical Requirements	
Location:	Lucas Heights / Camperdown / Clayton Working in different areas of designated site/campus as needed
Travel:	Will be required travel to ANSTO campuses from time to time Occasional travel to ANSTO sites within Australia Infrequent travel both internationally and nationally, most frequently for professional development Occasional field work in remote locations
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Labour intensive physical requirements (sitting, standing, frequent manual handling) Standing for long periods Frequent movements (climbing, stooping, kneeling, crouching, crawling) Working in a loud environment Public speaking, such as safety conversations, toolbox talks, practical training Industrial facility physical requirements (lifting, standing for long periods, operating machinery, and equipment) Wearing personal protective equipment for the handling of hazardous and/or radioactive materials Working in confined space environment including wearing respiratory equipment Working at heights

Radiation areas:	Will be required to work in radiation areas under tightly regulated conditions 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
Hours:	Willingness to work extended and varied hours based on operational requirements Possible shift work After hours work may be required based on operational requirements Required to participate on an on-call roster 24x7x365 following accreditation as HPS On-Call
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Obtain and maintain appropriate federal government clearance (Negative Vetting 1)

Workplace Health & Safety	
Specific role/s as specified in AP-2362 of the ANSTO WHS Management System	All Workers Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties.

ORGANISATIONAL CHART

As Per Published organisational chart

KNOWLEDGE, SKILLS, AND EXPERIENCE

Band 5

1. Degree or equivalent experience in Science or Engineering and sound knowledge of the sciences underpinning radiation safety core competencies.
2. Knowledge and experience in operational health physics and radiation safety with an understanding of underpinning legislation and regulations.
3. Substantial experience as an accredited ANSTO Health Physics Surveyor or equivalent.
4. Experience in implementing and applying radiation protection practices.
5. Strong verbal communication skills with emphasis on presentation skills and demonstrated ability to adapt communication styles to differing audiences.
6. Understanding and experience in implementing regulatory and IAEA guidelines and codes in operational (essential) and emergency situations.
7. Experience in radiation emergency management.
8. Proven project and time management skills.
9. Strong interpersonal skills with the ability to work across key staff and representatives at ANSTO, government agencies and professional organisations.

Band 6

1. Degree or equivalent experience in Science or Engineering with knowledge and practical application of the sciences underpinning radiation safety core competencies.
2. Knowledge and extensive experience in operational health physics and radiation safety with an understanding of underpinning legislation and regulations.
3. Extensive experience as an accredited ANSTO Health Physics Surveyor or equivalent.
4. Experience in implementing and applying radiation protection practices.
5. Strong verbal communication skills with emphasis on presentation skills and demonstrated ability to adapt communication styles to differing audiences.
6. Understanding and experience in implementing regulatory and IAEA guidelines and codes in operational and emergency situations.

7. Experience in radiation emergency management.
8. Proven project and time management skills.
9. Demonstrated strong interpersonal and influencing skills with the capacity to influence key staff and representatives at ANSTO, government agencies and professional organisations.

Linked Role Transition

Transition to the higher band within the linked role is not automatic and ability to perform Band 5 and Band 6 accountabilities will need to be demonstrated and assessed. This can be done by 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:	Andrew Popp	Name:	Karen Wolfe
Title:	Radiation Protection Services Manager	Title:	General Manager, High Reliability
Signature:		Signature:	
Date:	24//07/2023	Date:	24/07/2023