Australian Government

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POSITION DESCRIPTION

Position Title:	Technical Officer (Radioactive Facilities)
Cluster / Business Unit / Division	Nuclear Science and Technology
Section or Unit:	Nuclear Materials Development and Characterisation
Classification:	Band 4 / Band 5 (Linked)
Job Family:	Science
Position Description Number:	PD-2496
Work Contract Type:	Scientific/Technical
STEMM/NON-STEMM:	STEMM
STEMM CATEGORY:	Research & Sciences

POSITION PURPOSE

The Technical Officer (Radioactive Facilities) provides technical support that enables research and development output and outcomes to researchers, engineers, collaborators, commercial partners, and users of the radioactive facilities. The role also contributes to effective operation and maintenance of laboratory infrastructure and equipment ensuring high quality experimental practice.

ORGANISATIONAL ENVIRONMENT

ANSTO is a leading global nuclear science and technology organisation delivering world class research and expertise to benefit Australia and support a more sustainable future. Using nuclear science, we improve health, support industries, provide expert advice to government on nuclear technologies and help develop Australia's nuclear workforce.

Nuclear Science & Technology (NST) integrates ANSTO's research, innovation, landmark research infrastructure and associated platforms and capabilities. NST conducts research and development in relation to nuclear science and technology and connects people, transfers knowledge, and provides nuclear-based products and services for the benefit of Australia.

The Nuclear Materials Research and Technology Group (NM-RTG) is a leading centre for nuclear materials expertise in Australia. It incorporates a multidisciplinary team of scientists, technical specialists and engineers, supporting the design, development and performance of materials and technologies that span the nuclear fission energy life cycle. The NM-RTG Facilities and Capabilities Group are the custodians of a unique combination of research infrastructure, underpinned by relevant expertise, to enable synthesis, manufacture, handling, characterisation and modelling of nuclear fuels, structural materials and wasteforms. To this end, the NM-RTG Facilities and Capabilities Group provide an integrated multidisciplinary technical support to ANSTO operations, academia and industry across a variety of research and engineering sectors, both within Australia and in collaboration with international stakeholders.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities- Band 4

- Undertake all work safely according to standard test methods or work instructions and ensure that all experimental work is accurately recorded and documented.
- Contribute to developing safe work practices for the prescribed radiation facilities to ensure effective operation (through manual handling of materials within a glovebox or via manipulators

that could include processing of nuclear materials) that involves radiological monitoring of the laboratory equipment and facilities.

- Contribute to good laboratory practice ensuring adequate stock of consumables is maintained, equipment is operational and calibrated within the prescribed radiation facilities.
- Prepare and source materials / chemicals, ensuring inventory and relevant safety documentation are kept up to date.
- Responsible for the setting-up and operation of equipment, including collecting, compiling data and planning and carrying out experiments under professional supervision.
- Contribute to designing and preparing prototype jigs and fixtures for the experimental program utilising additive and subtractive materials preparation techniques.
- Perform under guidance the handling and preparation of solid or powdered materials that may contain radioactive components such that they are ready for a variety of materials characterisation techniques (such as optical or electron microscopy).
- Collaborate with other team members to deliver on work plans and schedules to meet client requirements (both internal and external).
- Contribute to developing, writing and implementing standard operating procedures and risk assessments for laboratory equipment usage and experimental practice.
- Engage with internal stakeholders to provide reports, feedback and guidance on work packages being undertaken in the prescribed radiation facility.
- Contribute to the management of accurate record keeping to meet quality and regulatory requirements, including active sample and chemical registers, ensuring inventory and relevant safety documentation is kept up to date according to organisational requirements.
- Maintain personal training in the safe handing, processing, monitoring and disposal of radioactive materials and competency to operate radiation specific equipment used within the prescribed radiation facility.
- Provide process and laboratory equipment training to ensure users maintain their appropriate level of competency.
- Provide supervision to contractors, radiation workers, auditors, and visitors within your speciality under the assurance of facilities management.
- Undertake additional duties as required and during period of staff leave.

Key Accountabilities Band 5 (in addition to Band 4 accountabilities)

- Undertake all accountabilities of Band 4 independently.
- Responsible for coordinating the facility equipment within the prescribed radiation laboratories, ensuring processes and equipment are risk assessed, calibrated and maintained so that internal and external users can optimise their time undertaking research and development.
- Develop strategies for improving the effectiveness of laboratory operations, ensuring continuous improvement practices are developed and maintained in the laboratory.
- Independently manage multiple tasks and effectively plan experiments in order to achieve deadlines.
- Lead experimental and measurement protocols to ensure prepared samples of solid or powdered materials that may contain radioactive materials can be characterised, accurately recorded, and documented to the appropriate quality standards.
- Responsible for designing and preparing prototype jigs and fixtures for experimental program utilising additive and subtractive materials preparation techniques.

- Provide subject matter expertise towards regularly undertaking safe work practices and capabilities for the prescribed radiation facilities to ensure effective operations (through manual handling, issue and processing of radiological materials optimising capability).
- Develop work instructions and safety documentation for equipment usage, experimental practice and maintenance of select instruments. This includes transfer of embodied knowledge from an inactive laboratory setting to active laboratory within the prescribed radiation facility.
- Lead the management of accurate record keeping to meet quality and regulatory requirements, ensuring inventory and relevant safety documentation are kept up to date.
- Lead the implementation of best practices in staff training in the safe handling of nuclear materials. This would also involve containment environments, processing, monitoring and disposal of radioactive materials.
- Lead and engage the wider team to develop and implement plans for workloads, ensuring project outcomes are met, and client requirements are satisfied.
- Contribute to equipment and facility upgrades and modifications to improve and extend operational capabilities, increase laboratory efficiency, and accommodate the needs of future projects and new research projects.
- Responsible for leading the delivery of specific tasks and outcomes. This may include, but is not limited to; operationalising new equipment, developing operational administrative systems, and assisting in meeting compliance targets.

Decision Making

- The position works within a framework of legislation, policies, professional standards and resource parameters. Within this framework the position will be provided with the parameters in which to operate the laboratories and facilities. The position has some independence in determining the tasks and activities required to achieve day-to-day operational outcomes.
- The ANSTO values, organisational corporate plan, strategic plan, operational excellence program, NST business plan, Nuclear Materials Development & Characterisation operational workplan provides the context for the position.
- The position is fully accountable for the accuracy, integrity and quality of the content of technical support and advice provided that is required to ensure that prescribed radiation facilities and activities are compliant with regulations.
- Daily work priorities are determined within the context of agreed work plans and schedules, consulting with line management on complex, sensitive and major issues that have a significant impact on the laboratory operations.
- 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

- Carry out multiple tasks to tight deadlines and adjusting plans to suit changing priorities.
- Ensure all safety precautions are taken by all staff and visitors when carrying out experiments and using equipment within the prescribed radiation facility.
- Troubleshooting to maintain equipment availability for projects within the prescribed radiation facility.
- Working in a complex technical environment, requiring constant safety precautions.
- Ensuring safety and regulatory compliance in the safe handling and processing of nuclear and radioactive materials within the prescribed radiation facility.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Line Manager	• Receive guidance and direction. • Provide evidence-based advice and recommendations. • Provide regular updates on key tasks, issues & priorities. • Negotiate and report on progress of project outcomes consistent with project plans and goals. • Recommend and gain approval for instrument modifications, enhancements and improvements and process/procedural changes or improvements. • Escalate issues and propose solutions
Work area team members	• Band 4 - Support team members and work collaboratively to contribute to achieving project outcomes. • Band 5 - lead the delivery of specific tasks and activities. • Band 4 - Receive guidance to instruct, direct, support and provide training. • Band 5- Provide supervision, instruction, direction, support, and training. • Contribute to group decision making processes, planning and goals. • Collaborate and share accountability information. • Negotiate and resolve scheduling or laboratory access conflicts
ANSTO Users (scientists, researchers, post docs) and other NST staff accessing laboratories & facilities	• Coordinate laboratory equipment availability and usage • Assess competence of staff to undertake activities within laboratories • Ensure safety and compliance with relevant ANSTO Users • Provide handling, data collection and training on practices within a prescribed radiation facility
External	
Facility users	• Coordinate laboratory equipment availability and usage • Assess competence of staff to undertake activities within laboratories • Ensure safety and compliance • Provide handling, data collection and training on practices within a prescribed radiation facility
Contractors, auditors and service personnel	• Provide oversight while working within facility. • Ensure safety and regulatory compliance.

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Research Leader
Direct Reports	Nil
Indirect Reports	Nil

Financial Data	
Revenue / Grants	N/A
Operating Budget	N/A
Staffing Budget	N/A
Capital Budget	N/A

Assets	N/A

Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed
Travel:	May be required travel from time to time.
Physical:	Laboratory standing for long periods Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Industrial facility physical requirements (lifting, standing for long periods, operating machinery, equipment, including glove box work and/or manipulators Wearing personal protective equipment for the handling of hazardous and/or radioactive materials. Working at Heights and confined spaces, Mechanical handling operation-lifting and crane operations
Radiation areas:	Will be required to work in radiation areas under tightly regulated conditions. Perform duties with and in an area where hazardous chemicals or radioactive materials are handled under tightly controlled safety conditions Contract supervision for works undertaken in active areas
Hours:	Willingness to work extended and varied hours based on operational requirements
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements

Workplace Health & Safety	
Specific role/s as specified in AG-2362 of the ANSTO WHS Management System	All Workers May be required to undertake one or more of the specified roles within the context and course of their duties Area Supervisor Building Manager Building Warden Contractor Supervisor Source Responsible Officer Nominated Safeguards Authorised Officer SRA Process Owner

ORGANISATIONAL CHART

Refer to Published Organisational Chart.

KNOWLEDGE, SKILLS AND EXPERIENCE

	Band 4	Band 5
	1. Demonstrated experience handling, processing or radiological monitoring of hazardous materials, along with either a trade, or technical qualification	Degree qualified in relevant area (science or engineering) together with demonstrated practice in safe handling, processing or monitoring radioactive materials
	2. Demonstrated ability to follow procedures, standards and guidelines together with drafting of protocols, tabulation of data, and preparation of technical reports	Demonstrated experience leading reviews of procedures, drafting experimental, operations and maintenance documents and leading the preparation of technical reports.
	3. Demonstrated experience operating, calibration, data collecting and maintenance of equipment	Same as Band 4
	4. Demonstrated experience working within, containment gloveboxes or manipulators, handling , monitoring or processing radioactive materials delivering to experimental plans (Desirable)	Same as Band 5 (Essential)
	5. Experience in providing technical, experimental and operational input into project plans .	Same as band 4 together with experience in implementing capability enhancements/ development plans.
	6. Experience in training staff in laboratory procedures & guidelines.	Demonstrated experience and ability to risk assess, train and supervise staff in laboratory procedures and techniques
	7. Demonstrated ability to communicate effectively with a friendly and helpful disposition with a proven desire to facilitate research and development to meet user objectives.	Same as Band 4
	8. Ability to support work to meet deadlines and reliably follow through with actions	Demonstrated ability to show initiative and support work to meet deadlines and reliably follow through with actions.
	9. Demonstrated ability to develop and maintain productive relationships with key stakeholders	Proven ability to communicate effectively (both written and verbally), develop and maintain productive working relationships with key stakeholders.
	10. Demonstrated commitment to ANSTO values particularly safe, secure and sustainable workplace.	Same as Band 4

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:	Ken Short	Name:	Michael Moody
Title:	Research Leader	Title:	Director, Nuclear Materials Research and Technology Group
Signature:		Signature:	
Date:		Date:	

Appendix 1

ANSTO Job Families
Accounting & Finance
Administration
Communications & Marketing
Compliance & Regulation
Engineering and Technical
Human Resources
ICT & Digital Solutions
Information & Knowledge Management
Legal
Manufacturing
Monitoring & Audit
Operations
Organisational Leadership
Project & Program
Research
Science
Security & Intelligence
Senior Executive
Service Delivery
Strategic Policy
Trades & Labour

Australian Government

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Technical Officer (Radioactive Facilities) (PD-2496) Position transition requirements
Band 4 to Band 5 Transition Checklist

Name:	
Commencement Date:	
Assessment Date:	

Note: Full written submission demonstrating and justifying how the employee meets the requirements must also be attached.

Requirements for transition	Met Criteria
a) Minimum 4 years working as Technical Officer in Nuclear Materials facilities in our prescribed radiation laboratories (Band 4) OR b) Minimum 4 years equivalent experience in a prescribed radiation facility	☐ Yes ☐ No OR ☐ Yes ☐ No
Demonstrated evidence of working independently and safely to conduct work with radioactive materials in prescribed radiation facilities that meets safety and compliance requirements	☐ Yes ☐ No

Undertake Band 4 accountabilities independently with little or no direct supervision	☐ Yes ☐ No
Independently undertake operations and maintenance of laboratory equipment to ensure infrastructure is operationally ready for next task or project.	☐ Yes ☐ No
Utilise judgement to independently assess priorities of project tasks to optimise workload.	☐ Yes ☐ No
Apply knowledge and demonstrated experience in safety and compliance against relevant standards to troubleshoot, investigate and resolve operational challenges with little or no supervision or guidance.	☐ Yes ☐ No
Demonstrated evidence towards continual improvement in safety, reliability and efficiency of the equipment and facilities, and by sharing individual knowledge and competency	☐ Yes ☐ No
Training and transfer of knowledge to other technical staff and users	☐ Yes ☐ No

Manager Recommendation:
I have reviewed the employee's competence in accordance with Linked Role PD-2496 and certify that the employee meets all requirements for transition and recommend transition from Band 4 to Band 5 be endorsed.

Manager Name:	
Signature:	
Date:	

General Manager Assessment
I have assessed the submission and confirm that the employee meets all requirements for transition from Band 4 to Band 5

General Manager Name:	
Signature:	
Date:	