



POSITION DESCRIPTION

Position Title:	Senior Technical Officer (Chemistry)
Cluster / Business Unit / Division	Nuclear Science and Technology
Section or Unit:	ANSTO Synroc
Classification:	Band 5 / Band 6 (Linked Role)
Job Family:	Research
Position Description Number:	PD-2449
Work Contract Type:	Technical
STEMM/NON-STEMM:	STEMM
STEMM CATEGORY:	Research and Sciences

POSITION PURPOSE

The primary role of the Senior Technical Officer (Chemistry) is to undertake laboratory activities associated with the chemical characterisation and testing of nuclear-relevant materials specifically related to the chemical durability of nuclear wasteforms. This role is also responsible for the management of laboratory infrastructure and equipment, as well as the development and implementation of continuous improvement methodologies to enhance safety and quality in ANSTO laboratories.

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 Science and Technology (NST) incorporates 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.

Synroc is internationally recognised as a leader in the development of waste immobilisation solutions for the treatment of challenging radioactive wastes. Synroc has been set the strategic objective to develop novel, robust, and reliable waste treatment solutions and engineering designs for ANSTO and international clients.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities- Band 5

- Undertake wastefrom durability analysis according to standard test methods and non-routine test protocols on both non-radioactive and radioactive materials, including reporting and authorising release of test results.
- Commission, operate, calibrate, troubleshoot, and maintain complex laboratory instrumentation.
- Contribute to research and development activities by working as part of a team to complete experimental work on time, and within the required scope and budget.
- Independently manage multiple tasks, prioritise work and effectively plan experiments so that deadlines are met.
- Develop and review work instructions and safety documentation for laboratory activities.

- Implement quality assurance protocols to ensure the integrity and accuracy of scientific data produced through laboratory activities meets requisite standards.
- Supervise other laboratory users working in hazardous and radiologically-classified facilities to ensure activities undertaken are in accordance with relevant regulatory requirements and ANSTO policies.
- Coordinate the operation and maintenance of facilities, infrastructure and equipment including ensuring continual review of existing work practices for improvement.
- Interface with internal and external stakeholders such as clients, laboratory users, maintenance personnel and ANSTO enablers.
- Undertake additional duties as required and during period of leave of other staff.

Key Accountabilities – Band 6

- Provide expert technical knowledge in wasteform durability to guide research staff in the conception and execution of research projects and act as an authoritative source of advice on nuclear materials chemistry.
- Develop, implement and validate new wasteform durability test methods to enhance existing nuclear materials chemistry capabilities in line with ANSTO's strategic research priorities.
- Contribute to long-range planning of nuclear materials chemistry capability development, laboratory demand management and the realisation of ANSTO strategic research priorities.
- Represent ANSTO nationally or internationally in area of expertise, including acting as ANSTO's official representative on international technical bodies such as ASTM International for the purposes of organisational membership.
- Develop and lead experimental programs in wasteform durability and nuclear materials chemistry as part of larger research programs.
- Lead and manage activities within hazardous and radiologically-classified laboratory facilities, prioritise work and effectively develop and plan experimental programs so that deadlines are met.
- Lead specific tasks as part of a larger project team to deliver work plans and schedules to meet the requirements of the client.
- Author and approve the final release of complex research and test reports.
- Lead the development and implementation of quality assurance protocols to ensure the integrity and accuracy of scientific data produced through laboratory activities meets requisite standards.
- Utilise specialist knowledge to participate in international technical forums and collaborate with international scientific partners.
- Lead and be responsible for the education and training of stakeholders in wasteform durability and nuclear materials chemistry.
- Supervise direct reports and provide leadership and mentoring to more junior staff and laboratory users.

Decision Making

- The position works within a framework of legislation, policies, professional standards and resource parameters. Within this framework the position has some independence in determining how to achieve operational plans and objectives of the facilities and must always ensure compliance to relevant regulations.
- The ANSTO values, organisational corporate plan, business plan, operational excellence program, the NST strategy and Synroc objectives provide the context for the position.
- The position is fully accountable for the accuracy, integrity, and quality of the content of advice provided and is required to ensure that facilities and activities are compliant with regulations.
- Determine key work priorities within the context of agreed work plans and will consult with line manager on complex, sensitive and major issues that have a significant impact on Synroc.
- 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

- Undertake work in a manner that supports the team's ability to meet deadlines, by demonstrating a sense of urgency and the ability to prioritise tasks and activities to ensure client deadlines are met.
- Undertake test protocols with radioactive material.
- Perform routine and non-routine tests associated with research programs on nuclear materials.
- Complete the timely analysis of materials according to relevant standards followed by interpretation/presentation and delivery of test reports.
- Work with stakeholders to achieve outcomes and improve response times and delivery efficiencies.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	<ul style="list-style-type: none"> • Receive guidance and direction • Provide expert, authoritative and evidence-based advice and recommendations. • Report on compliance of facility • Provide regular updates on key tasks, issues & priorities • Collaborate on plans and activities for the instrument/s and related matters. • Recommend and gain approval for instrument modifications, enhancements and improvements and process/procedure changes or improvements. • Escalate issues and propose solutions
Work area team members	<ul style="list-style-type: none"> • Band 5 - support team members and work collaboratively to contribute to achieving work outcomes • Band 6 – lead the delivery of specific work packages as defined by project lead • Provide supervision while using the facility • Demonstrate facility/laboratory best practice • Contribute to group decision making processes, planning and goals • Collaborate and share information • Identify, negotiate and resolve priority conflicts
NST Researchers and Scientists and other ANSTO staff utilising facilities	<ul style="list-style-type: none"> • Facilitate, plan and manage experiments, advise on data processing, statistical analysis and interpretation where required • Provide expert advice and analysis • Ensure safety and regulatory compliance • Provide training and supervision while using facility
External	
Facility users from universities, industrial business entities, national and international research organisations industry or business	<ul style="list-style-type: none"> • Provide expert advice and analysis • Provide training and supervision while using facility
Contractors, suppliers	<ul style="list-style-type: none"> • Build quality and professional working relationships. • Provide expert advice and analysis

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Leader of the AST or their delegate
Direct Reports (for Band 6)	Technical Officer
Indirect Reports	Nil

Financial Data (2023/2024)	
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 to ANSTO sites 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) Public speaking Industrial facility physical requirements (lifting, standing for long periods, operating machinery, equipment and manipulators) Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
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 radioactive materials are handled under tightly controlled safety conditions
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 Officer (definitions found in appendix 1 of AG-2362) Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties

ORGANISATIONAL CHART

Refer to Published Organisational Chart

KNOWLEDGE, SKILLS AND EXPERIENCE

Band 5	Band 6
1. Degree or higher in relevant field of science (Chemistry, Materials Science, or an equivalent discipline)	Same as Band 5
2. Extensive knowledge of analytical techniques for chemical characterisation	Same as Band 5 plus a minimum of 5 years' experience in research and or industrial laboratories.
3. Demonstrated experience in undertaking quantitative chemical analysis	Extensive demonstrated practice with > 5 years practice in undertaking quantitative chemical analysis.
4. Demonstrated experience in laboratory facilities management working to safety and quality best practice	Lead laboratory facilities management demonstrating best practice in safety and quality assurance.
5. Demonstrated laboratory experience including operating standard test methods.	Demonstrated laboratory experience including implementation of test methods and working to appropriate safety and quality standards.
6. Demonstrated experience in statistical analysis	Demonstrated experience (>5 years) in statistical analysis
7. Demonstrated ability to support work to meet deadlines and reliably follow through with actions	Demonstrated ability to independently prioritise and manage tasks and projects including reliably follow through on actions to deliver on agreed timelines
8. Ability to develop and maintain productive working relationships across a broad range of internal and external stakeholders	Same as Band 5
9. Personal qualities that add value to a team operating to a high level of client delivery, safety and quality	Same as Band 5
10. Excellent interpersonal and communication skills both written and verbal	Same as Band 5

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:	Dan Gregg	Name:	Gerry Triani
Title:	Manager, Wasteforms Engineering	Title:	Technical Director, Synroc Technologies
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

**Professional Officer (Chemistry) Linked Role (PD-XXXX)
Band 5 to Band 6 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 5 years working as Technical Officer (Band 5) OR b) Minimum 5 years equivalent experience	<input type="checkbox"/> Yes <input type="checkbox"/> No OR <input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrated capability to independently manage engineering tasks within projects to successful completion	<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:	
Undertake Band 5 accountabilities independently with little or no direct supervision	<input type="checkbox"/> Yes <input type="checkbox"/> No
Independently manage research tasks and projects	<input type="checkbox"/> Yes <input type="checkbox"/> No
Utilise judgement to independently assess priorities of projects and tasks to optimise the workflow	<input type="checkbox"/> Yes <input type="checkbox"/> No
Training and transfer of knowledge to other technical staff and users	<input type="checkbox"/> Yes <input type="checkbox"/> No
Providing feedback and contributing to the process of continual improvement in safety, reliability and efficiency sharing individual knowledge and know-how	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lead and coordinate project tasks as part of a larger program to achieve outcomes	<input type="checkbox"/> Yes <input type="checkbox"/> No

Manager Recommendation:

I have reviewed the employee's competence in accordance with Linked Role PD-XXXX and certify that the employee meets all requirements for transition and recommend transition from Band 5 to Band 6 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 5 to Band 6

General Manager Name:	
Signature:	
Date:	