



POSITION DESCRIPTION

Position Title:	Senior Scientist (Chemistry/Radiochemistry)
Cluster / Business Unit / Division	NSSS – Nuclear Stewardship
Section or Unit:	Nuclear Forensics
Classification:	Band 6
Job Family:	Research
Position Description Number:	PD-1804
Work Contract Type:	Scientist
STEMM/Non-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the Senior Scientist (Chemistry/Radiochemistry), Nuclear Forensics is to provide high level expertise in analytical chemistry and radiochemistry, focused on mass spectrometry analysis, to develop and lead nuclear forensic capability extension projects. The position contributes expert scientific knowledge to ensure the trusted advice and specialised services provided by Nuclear Forensics meet user requirements.

ORGANISATIONAL ENVIRONMENT

ANSTO is the national organisation for nuclear science and technology. We focus on undertaking leading edge research, delivering innovative scientific services and providing specialised advice to government, industry, academia and other research organisations.

Nuclear Stewardship is the custodian of ANSTO's mandated and site-essential capabilities housed within NSTLI that respond to the needs of the Australian Government, industry and the community relevant to nuclear detection, nuclear forensics, radionuclide metrology, radioanalytical chemistry and environmental monitoring. These capabilities underpin ANSTO's ability to be responsive to and prepared for a range of nuclear stewardship related functions and responsibilities through the provision of reliable and trusted scientific and technical advice and specialised services.

The Nuclear Forensics capability area operates Australia's designated nuclear forensics laboratory and works in close cooperation and collaboration with internal and external stakeholders domestically and internationally. Nuclear Forensics has a high profile in international engagement and outreach to strengthen global nuclear security and provides trusted advice and specialised services in support of needs of the Australian Government.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- Apply high level scientific knowledge and technical expertise to the planning, undertaking and completion of operational and capability extension projects to maintain and strengthen ANSTO's Nuclear Forensic capability.
- Provide technical leadership, guidance and support to technical staff within the Nuclear Forensics team with the aim of building team capabilities.
- Provide expert scientific knowledge to ensure the trusted advice and specialised service provided by the Nuclear Forensic capability area meet customer requirements.
- Plan and undertake experimental work, including radiochemical separations and mass spectrometry analyses to meet group requirements.

- Assess and interpret experimental results, prepare internal or external reports or first author and co-author publications in relevant international journals and give presentations at national and international fora.
- Build collaborative relationships both internally and externally to enable effective communication around deliverables.
- Contribute to a working environment and culture which promotes teamwork and knowledge sharing, is collaborative and user focussed and achieves high quality scientific outcomes and results.
- Undertake additional duties as required and during periods of leave of other staff.

Decision Making

- The ANSTO values, organisational corporate plan, business plan, operational excellence program, Nuclear Stewardship Business Plan and Nuclear Forensic Capability Area Operational Plans provide the context for the position.
- The position holder works within a framework of legislation, policies, professional standards and resource parameters. The position holder has independence in determining the tasks and activities required to achieve day-to-day activities.
- The position is fully accountable for the accuracy, integrity and quality of the content of advice provided to the Manager, Nuclear Forensics and other staff, and is required to ensure that decisions are based on sound evidence.
- Daily work priorities are determined within the context of agreed work plans and the position holder will consult with the line manager on complex, sensitive and major issues that may have a significant impact on the Nuclear Forensic capability area.
- 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

- Working in a highly regulated environment with radioactive and hazardous materials.
- Managing security risks and supporting a positive security culture to comply with protective security and physical protection requirements as described in the ANSTO Security Manual AG-1028.
- Developing an in-depth knowledge and understanding of Nuclear Forensic concepts including knowledge of the nuclear fuel cycle.
- Ensuring work is fully compliant to the quality framework.
- Developing and implementing new or improved radioanalytical techniques, particularly mass spectrometry analysis, to maintain and strengthen ANSTO's Nuclear Forensic capability.
- Proposing capability extension ideas, developing work plans and ensuring completion of activities within the strategic directions of Nuclear Forensics.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Line Manager	<ul style="list-style-type: none"> • Provide expert, authoritative and evidence based advice • Recommend and gain endorsement for plans and other initiatives • Receive guidance and direction
Work area team members	<ul style="list-style-type: none"> • Provide expert guidance and direction on a range of radioanalytical, instrument and laboratory matters • Provide technical leadership, guidance and support • Contribute to group decision making processes, planning and goals

	<ul style="list-style-type: none"> • Collaborate and share accountability
ANSTO Users (scientists, researchers, technical staff)	<ul style="list-style-type: none"> • Establish constructive relationships • Give recommendations on analytical capabilities and scheduling • Liaise with users on analytical requests and reporting • Collaborate on technical projects
External	
Users (customers, scientists, researchers, post-docs, students and visitors)	<ul style="list-style-type: none"> • Establish constructive relationships • Provide advice on analytical capabilities and scheduling • Liaise with for analytical requests and reporting • Collaborate on technical projects • Liaise with clients on commercial projects, analytical requests and reporting
Instrument suppliers and providers of calibration, and maintenance services	<ul style="list-style-type: none"> • Establish constructive relationships • Clearly communicate needs and expected outcomes

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Manager, Nuclear Forensics
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 or work group of platform as needed
Travel:	May be required to travel nationally and internationally for conference, workshop or meeting attendance.
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Laboratory work may require standing for long periods and operating equipment Labour intensive physical requirements (sitting, standing, frequent manual handling up to 20kg) Public speaking (at conferences and in-house meetings/events) Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	Required to work in radiation areas or handle hazardous chemicals or radioactive materials under strictly regulated and controlled safety conditions.
Hours:	Able to work variable hours according to operational requirements.

	After hours work may be required for short and infrequent periods.
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements. Required to hold the appropriate national security clearance.

Workplace Health & Safety

Specific role/s as specified in <u>AG-2362</u> of the ANSTO WHS Management System	<p>All Workers</p> <p>May be required to undertake one or more of the specified roles within the context and course of their duties</p> <ul style="list-style-type: none"> • Area Supervisor • Building Warden • Contractor Supervisor • Designated First Aid Officer <p>Health and Safety Committee Member</p>
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ORGANISATIONAL CHART

Refer to published Organisational Chart.

KNOWLEDGE, SKILLS AND EXPERIENCE

1. PhD or Degree with extensive experience in relevant field of science (Chemistry, Radiochemistry, Environmental) or other related discipline.
2. Demonstrated relevant experience in radiochemical separations, U-series disequilibrium studies and extensive operational experience of MC-ICP-MS and/or ICP-qMS.
3. Proven ability to plan, manage and lead projects including prioritising work and responding to changing priorities and deadlines.
4. Demonstrated high level report writing and presentation skills.
5. High level problem solving skills and analytical ability including the ability to obtain and interpret information and make specific recommendations.
6. Strong team and stakeholder focus with demonstrated ability to build collaborative relationships and networks.
7. Experience in and proactive approach to following policy, procedures and guidelines.
8. Willingness to learn, adapt and develop improved processes and procedures.
9. Interpersonal and communication skills with the ability to interact, negotiate and communicate with a varied and multidisciplinary audience including customers.
10. Demonstrated personal qualities that will achieve the high quality outputs required of the position. The ideal candidate will be meticulous, questioning, measured, accountable and respectful of safety and security 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:	Tegan Bull	Name:	Emmy Hoffmann
Title:	Manager, Nuclear Forensics	Title:	Leader, Nuclear Stewardship
Signature:		Signature:	
Date:		Date:	