



POSITION DESCRIPTION

Position Title:	Senior Scientist, Nuclear Forensics
Cluster / Business Unit / Division	NSSS – Nuclear Stewardship
Section or Unit:	Nuclear Forensics
Classification:	Band 7
Job Family:	Research
Position Description Number:	PD-1728
Work Contract Type:	Scientist
STEMM/Non-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the Senior Scientist, Nuclear Forensics is to provide scientific leadership and subject matter expertise to ensure the trusted advice and specialised services provided by the Nuclear Forensics capability area meets customer requirements. The incumbent will have a lead role in international engagement in technical nuclear forensics; providing scientific and managerial leadership for the successful planning, undertaking and completion of nuclear forensic capability extension. The incumbent will also be the platform delegate responsible for liaising with and providing advice to internal and external clients requesting access to Nuclear Stewardship capabilities, particularly through the ANSTO Research Portal.

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

- Provide scientific leadership and expert knowledge to ensure the trusted advice and specialised services provided by the Nuclear Forensics capability area meet customer requirements.
- Lead ANSTO's international engagement in technical nuclear forensics. This involves building collaborative relationships with international technical organisations that have a remit for nuclear forensic science and representing Australia in international nuclear forensic fora.
- Lead innovation and scope extension of the Nuclear Forensic capability area. The position will provide high level technical expertise and managerial leadership for the successful planning, undertaking and completion of capability extension projects with the aim of building team

capabilities in strategic techniques to ensure ANSTO maintains a strong technical nuclear forensic capability.

- Lead the conduct of experimental work, analysis and interpretation of experimental results and preparation of reports or papers for peer-reviewed publications and presentation at national and international fora.
- Plan, manage and lead technical nuclear forensic projects for external and internal stakeholders. Managing technical nuclear forensic projects will entail setting goals and objectives, leading negotiations, motivating multi-disciplinary and specialist project teams, disseminating information and knowledge across the team, monitoring and reviewing project work and coordinating with external collaborators (where applicable), with the aim of ensuring that project objectives are met in a timely manner to stakeholder satisfaction.
- Liaise with internal and external researchers requesting Nuclear Stewardship capabilities through the ANSTO Research Portal (ARP). The position is responsible for assessing each ARP request in conjunction with the Nuclear Stewardship management team, providing expert advice where relevant and facilitating communication between contact scientists and the research management officer to ensure the experience of both potential researcher and contact scientist occur in the shared interests of ANSTO.
- Support the broad spectrum of activities undertaken by the Nuclear Forensics capability area, in particular participating in outreach activities to support ANSTO's national security objectives.
- Maintain high awareness of global nuclear security issues and target appropriate opportunities for learning and promoting national and international awareness of the role of nuclear forensics
- Maintain an extensive knowledge of current nuclear forensic scientific capabilities and developments internationally.
- Undertake additional duties as required and during period of leave of other staff.

Decision Making

- The ANSTO values, organisational corporate plan, business plan, operational excellence program, the NSTLI strategy and Nuclear Stewardship objectives provide the context for the position.
- 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).
- 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 objectives of the unit, including deciding on methods and approaches, operations, project planning and allocation of resources.
- The position is fully accountable for the accuracy, integrity and quality of the content of advice provided to the Manager, Nuclear Forensics, and is required to ensure that decisions are based on evidence, but at times may be required to make sound judgements in complex decision making.

Key Challenges

- Keeping abreast of recent developments in science and technology that may benefit the field of nuclear forensics, ensuring continual improvement and implementation of best practice.
- Ensure full compliance with the quality and environmental frameworks, safety procedures and standards, regulatory requirements and management principles.
- Understanding and operating within the complex relationships that exist between government agencies to implement a nuclear forensic capability, both nationally and internationally
- Managing technical nuclear forensic projects in terms of the availability of people and instrumentation across ANSTO to meet project deadlines.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager, Nuclear Forensics	<ul style="list-style-type: none"> • Provide expert, authoritative and evidence based advice • Recommend and gain endorsement for plans and goals and other initiatives
Work area team members	<ul style="list-style-type: none"> • Provide expert advice and analysis on a full range of matters • Contribute to group decision making processes, planning and goals • Collaborate and share accountability • Provide technical leadership, guidance and support
Other NSTLI Platform members	<ul style="list-style-type: none"> • Collaborate and coordinate technical nuclear forensic projects
ANSTO Users (scientists, researchers, post-docs) Other NSTLI staff accessing laboratories & facilities	<ul style="list-style-type: none"> • Co-ordinate laboratory availability and usage • Develop sample processing strategies • Assess competence to undertake activities within laboratory/s • Understand user requirements and desired outcomes • Provide technical advice, analysis and training
ARP User Office	<ul style="list-style-type: none"> • Coordinate communication between ARP User Office and Nuclear Stewardship contact scientists
External	
Users (scientists, researches, post-docs, students)	<ul style="list-style-type: none"> • Co-ordinate laboratory availability and usage • Develop sample processing strategies • Assess competence to undertake activities within laboratory/s • Understand user requirements and desired outcomes • Provide technical advice, analysis and training
ARP User Office	<ul style="list-style-type: none"> • Coordinate communication between ARP User Office and Nuclear Stewardship contact scientists
Bilateral partners	<ul style="list-style-type: none"> • Manage bi-lateral partnerships on technical nuclear forensics
Multilateral forums	<ul style="list-style-type: none"> • Engage in technical nuclear forensic projects on behalf of ANSTO • Represent ANSTO and Australia
International Organisations	<ul style="list-style-type: none"> • Represent ANSTO and Australia at technical nuclear forensic fora

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Manager, Nuclear Forensics
Direct Reports	Nil
Indirect Reports	Nil
Financial Data (2021/2022)	
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 Frequent travel both internationally and nationally
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 Laboratory facility physical requirements (lifting, sitting, standing, operating equipment, manual handling up to 20 kg) Public speaking Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	Perform duties with and 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 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 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 <ul style="list-style-type: none"> • Area Supervisor • Building Manager • Building Warden • Contractor Supervisor • Facility Officer • SAC Responsible Officer
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ORGANISATIONAL CHART

Refer to the published organisation chart.

KNOWLEDGE, SKILLS AND EXPERIENCE

1. Degree or higher in relevant field of science or related discipline
2. Extensive experience in and extensive knowledge of nuclear forensics, through publications, operational and capability development activities
3. Proven ability to plan, manage and lead projects
4. Demonstrated high level report writing and presentation skills
5. Strong team and stakeholder focus with demonstrated ability to build collaborative business relationships and networks
6. High level problem solving skills and analytical ability including the ability to obtain and interpret information and make specific recommendations
7. Experience of statutory security and safeguards requirements for a nuclear establishment
8. Knowledge of Australian and global nuclear policy and related issues e.g. international cooperation, non-proliferation issues, Australian science policy, and the nuclear fuel cycle.

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:	Mark Reinhard
Title:	Manager, Nuclear Forensics	Title:	Leader, Nuclear Stewardship
Signature:	As per original	Signature:	As per original
Date:	24/03/2017	Date:	24/03/2017