Australian Government

ANSTO
Science. Ingenuity. Sustainability.

POSITION DESCRIPTION

Position Title:	Technical Officer, Microanalysis
Cluster / Business Unit / Division	Nuclear Operations, Safety and Security (NOSS)
Section or Unit:	Nuclear Stewardship – Nuclear Forensics
Classification:	Band 4
Position Description Number:	PD-2031
Work Contract Type:	Technical Officer

POSITION PURPOSE

The Technical Officer, Microanalysis enables the operational microanalytical activities of the Nuclear Forensics capability area by ensuring maintenance of laboratory facilities, equipment and procedures, and undertaking sample preparation and microscopy analysis for nuclear forensic examinations. The Technical Officer, Microanalysis supports the development, documentation and implementation of new microanalysis processes.

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.

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 maintains national capabilities that support industry, government and scientific users. Capabilities include radionuclide metrology, radioanalytical chemistry, nuclear forensics and environmental monitoring.

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

- Support the development, implementation and risk assessment of sample preparation procedures for microanalysis in a clean and highly controlled environment.
- Utilise specialised knowledge and expertise in analytical science to perform microscopic analysis for the purpose of material isolation, characterisation and preparation for instrumental analysis.
- Use experience and skills in clean room practices, optical microscopy or microanalysis to support the commissioning of fit-for-purpose laboratory spaces and implementation of new workflows and analytical processes.
- Maintain laboratory equipment such as microscopes, water filtration systems, ultrasonic baths, centrifuges, muffle furnaces, laboratory ovens, radiation detection equipment and other instrumentation as required to ensure equipment is available for safe and accurate use with minimal down-time.

- Maintain accurate and complete records of laboratory processes including but not limited to sample management, equipment maintenance, calibration and performance, laboratory cleaning, quality assurance testing, and purchasing.
- Practice exceptional laboratory housekeeping to enable operational readiness of the laboratories including cleaning and quality testing of laboratories, and ensuring adequate stock of chemicals and consumables is maintained for users.
- Under instruction of the line manager or delegate, be proactive in maintaining compliance with quality, safety, security, environmental, and operational requirements of the laboratories and applicable areas.
- Contribute to a working environment which promotes teamwork and knowledge sharing, is collaborative and user focussed, and achieves high quality scientific outcomes.
- Demonstrate professionalism, discretion and sound judgement to achieve high quality outcomes within the requirements of a security sensitive environment.
- 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, NOSS strategy, Nuclear Stewardship Business Plan and Nuclear Forensic Capability Area Operational Plans and Arrangements provide the context for the position.
- The position holder works within a framework of legislation, policies, professional standards and resource parameters. The position holder undertakes the tasks and activities required to achieve day-to-day activities in consultation with the line manager.
- The position is fully accountable for informing the line manager and staff of limitations to achieve agreed work plans.
- Daily work priorities are determined within the context of agreed work plans and the position holder will consult with line management on complex, sensitive and major issues that 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

- Complying with and taking a proactive approach to continual improvement of processes that are developed in accordance with legislation, standards, policies and best practices (e.g. Workplace Health and Safety and ISO9001 requirements).
- Learning complex analytical processes, supporting the development of standard operating procedures and undertaking them to provide reproducible, high-quality data.
- Maintaining a fastidious approach and enthusiasm to perform repetitive tasks to a high standard to address stringent analytical requirements.
- Working under limited supervision, managing time and prioritising work effectively.
- Having a clear understanding of information security requirements and a commitment to the application of protective measures.
- Keeping abreast of recent developments in the field, ensuring continual improvement and implementation of best practice to enhance the ability of Nuclear Stewardship to carry out its business.
- Operating effectively across the Nuclear Stewardship capability areas as a team member and technical officer.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Line Manager	• Receive direction and guidance • Provide authoritative and evidence-based advice • Recommend and gain endorsement for improvement or development plans and goals and other initiatives
Work area team members	• Provide and receive supervision, instruction, direction, support, training and technical leadership • Teamwork and knowledge sharing • Engagement and learning
ANSTO staff	• Build constructive and productive relationships within ANSTO in support of the delivery of client services
External	
Instrument suppliers and providers of calibrations and maintenance services	• Establish constructive relationships • Clearly communicate needs and expected outcomes • Purchase laboratory consumables, chemicals and equipment

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Science Program Manager, Microanalysis
Direct Reports	Nil
Indirect Reports	Nil

Financial Data
Revenue / Grants
Operating Budget
Staffing Budget
Capital Budget
Assets

Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed.
Travel:	May be required to travel to ANSTO sites within Australia occasionally Infrequent travel both internationally and nationally. May be required to undertake field work in remote locations from time to time.
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer). Laboratory facility physical requirements (lifting, standing for long periods, operating machinery, equipment and in some roles manipulators). Wearing personal protective equipment for the handling of hazardous and/or radioactive materials. Public speaking (at conference and in-house meetings/events).

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: • Area Supervisor • Building Warden • Contractor Supervisor • Designated First Aid Officer • Health and Safety Committee Member 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

1. Degree in relevant field of science (e.g. chemistry, geochemistry, analytical chemistry, environment) or equivalent experience, ideally coupled with demonstrated experience and skills in clean room practices, optical microscopy or microanalysis.
2. A conscientious approach and willingness to be instructed on how to perform repetitive tasks to a high standard to address stringent analytical requirements.
3. Practical experience and technical skills from working within a chemical or analytical laboratory environment.
4. Self-motivated with personal initiative to maintain operational readiness of laboratories under minimal supervision.
5. Willingness to be guided in planning and setting up routine and non-routine experiments and collecting and presenting data under minimal supervision.
6. Ability to learn, adapt and develop improved processes and procedures.
7. Demonstrated ability to work as a part of a team and establish productive relationships.
8. Ability to follow standard procedures, regulations and WHS requirements and experience understanding QA requirements.
9. 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:	Emma Young	Name:	Jennifer Harrison
Title:	Science Program Manager, Microanalysis	Title:	General Manager, Nuclear Stewardship
Signature:		Signature:	
Date:		Date:	