



POSITION DESCRIPTION

Position Title:	Radiochemist
Cluster / Business Unit / Division	NSSS - Nuclear Stewardship
Section or Unit:	Radioanalytical Chemistry
Classification:	Band 4
Job Family:	Science
Position Description Number:	PD-1439
Work Contract Type:	Technical
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the Radiochemist is to support the research and operational requirement of the radiochemical laboratories and instrument laboratories that form the Radioanalytical Chemistry (RAC) capability within Nuclear Stewardship through the provision of radiochemistry expertise (analytical and experimental) and by maintaining operational readiness of the radioanalytical 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 Stewardship maintains national capabilities that support industry, government and scientific users. Capabilities include radionuclide metrology, ionising radiation detection and measurement, radioanalytical chemistry, nuclear forensics and environmental monitoring.

The RAC capability within Nuclear Stewardship develops and maintains specialist radioanalytical and experimental facilities utilising nuclear techniques to support ANSTO's core activities and its stakeholders and to apply these techniques and associated expertise to topics related to releases of radionuclides into the environment, nuclear fuel cycle and other research areas involving quantification of radionuclides at or above typical environmental levels.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- Perform radiochemical separations, measurements and undertake technique improvement as required;
- Prepare for and participate in fieldwork activities. This includes preparation of reagents and fieldwork equipment and consumables.
- Plan and carry out experiments for the measurement of chemical and physical properties of environmental samples such as soils, vegetation and water, including trace element concentrations, major ion chemistry and isotopic measurements;
- Maintain, calibrate and operate laboratory, field and counting equipment under the general guidance of senior staff;
- Oversee the effective maintenance and operation of the laboratories used for this work, including cleaning, setting up of apparatus, chemical preparation, stocking of laboratory consumables;
- Contribute to the tabulation and organisation of extensive data-sets-

- Assist in interpreting the significance of results and preparing results for publication in reports, journal papers and for the information of stakeholders in conjunction with more senior staff and researchers;
- Share knowledge and expertise within the laboratory environment with others to ensure cross skilling within the lab;
- Contribute to research output and experimental programs by working as part of a project team to complete experiments and field work within time and scope whilst satisfying task/project objectives;
- Implement and contribute to development/improvement of chemical methods and measurement procedures, participate in literature reviews and training;
- Independently plan work load to meet project outcomes and deliver on time to meet constantly changing requirements;
- Adhere to high quality and safe working practices in the laboratory to ensure compliance with relevant standards and procedures
- Update chemical registers and participation in quality audits; 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, Nuclear Stewardship Business Plan and Radioanalytical Chemistry 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. Within this framework the position will be provided with the parameters in which to operate the laboratories and facilities. The position holder has some 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 users and 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 have a significant impact on RAC.
- 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

- Managing conflicting priorities and unexpected events in order to achieve the project goals. The role requires an ability to prioritise and work within deadlines and time constraints, while handling any unexpected constraints such as weather, staff availability, and equipment breakdown, and unforeseen analyses, in a non-routine working environment;
- Developing knowledge and skills in utilising specialised radiochemical analysis equipment and associated radiochemical separation techniques;
- Implementing a sampling strategy to facilitate conceptual models of the field site;
- The requirement to have a range of expertise to participate in technical support procedures related to radiochemistry, soil science, hydrogeochemistry, and other related disciplines.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Line Manager	<ul style="list-style-type: none"> • Receive guidance and direction • Receive expert, authoritative and evidence based advice
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 • Negotiate and resolve conflicts
ANSTO Users (scientists, researchers, technical staff)	<ul style="list-style-type: none"> • Establish constructive relationships • Provide supervision, instruction, direction, support, training and technical leadership • Provide advice on analytical capabilities • Liaise with for analytical requests and reporting
External	
Scientists, Researchers and technical staff	<ul style="list-style-type: none"> • Establish constructive relationships • Provide advice on analytical capabilities and scheduling • Liaise with for analytical requests and reporting • Collaborate with on new research ventures
Instrument suppliers and providers of calibration, and maintenance services	<ul style="list-style-type: none"> • Establish constructive relationships • Clearly communicate needs, deliverables and expected outcomes

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Manager, Radioanalytical Chemistry
Direct Reports	Nil
Indirect Reports	Nil
Financial Data (2019/2020)	
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/locations or work groups as needed
Travel:	Field work in remote locations May be required to travel nationally or internationally for business requirements

Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Labour intensive physical requirements (sitting, standing, frequent manual handling up to 20kg) Standing for long periods in a laboratory Frequent and/or repetitive movements (kneeling, crouching, pipetting and grinding) Public speaking Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	Work with radioactive materials, contaminated sites, and/or in radiation areas under strictly regulated and controlled 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 <u>AG-2362</u> of the ANSTO WHS Management System	All Workers Managers / Leaders / Supervisors Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties <ul style="list-style-type: none"> • Area Supervisor • Building Manager • Building Warden • Contractor Supervisor • Designated First Aid Officer • Health and Safety Representative
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ORGANISATIONAL CHART

Refer to published Organisational Chart

KNOWLEDGE, SKILLS AND EXPERIENCE

1. Degree in environmental science, chemistry, or other relevant discipline or equivalent relevant experience.
2. Significant experience working in a radiochemistry (or other science) laboratory
3. Demonstrated experience undertaking a range of sample preparation techniques for analytical methods involving radiochemistry and interpretation of results;
4. Demonstrated knowledge and experience undertaking environmental field work
5. Proven ability to work independently, prioritise work and complete assigned duties with limited supervision and direction
6. Demonstrated competency in taking responsibility for specific technical components of projects
7. Ability to add value and work within a research team operating in a high level safety and quality environment
8. Demonstrated ability to apply WHS principles and contribute to continuous safety improvements and following policy, procedures and guidelines
9. Strong computer skills, in particular entry of data into spread sheets and manipulations
10. Demonstrated ability to communicate information, including significant input into scientific papers derived from the work

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:	Sangeeth Thiruvoth	Name:	Emmy Hoffmann
Title:	Radiochemist / Radioanalytical Chemistry Manager (acting)	Title:	Manager Nuclear Stewardship (acting)
Signature:		Signature:	
Date:		Date:	