



## POSITION DESCRIPTION

<b>Position Title:</b>	Post Doctoral Research Fellow
<b>Cluster / Business Unit / Division</b>	Nuclear Precinct
<b>Section or Unit:</b>	Nuclear Analysis
<b>Classification:</b>	Band 5 Level 3 (Early Career Category: Post Doctoral Fellowship)
<b>Job Family:</b>	Research
<b>Position Description Number:</b>	PD-2427
<b>Work Contract Type:</b>	Research
<b>STEMM/NON-STEMM:</b>	STEMM
<b>STEMM CATEGORY:</b>	Science

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### POSITION PURPOSE

The primary objective of the Post Doctoral Research Fellow is to perform research that contributes to an ANSTO/UKAEA collaborative project to enable the irradiation of candidate fusion reactor materials at high temperatures. The UKAEA researches fusion energy and related technologies, with the aim of positioning the UK as a leader in sustainable nuclear energy. The research will enable to the development and qualification of structural materials suitable for use in high temperature nuclear fusion reactors.

### 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 and is the centre of Australia's nuclear research.

The Nuclear Operations and Nuclear Medicine brings together the key areas of Reactor Operations, the commercial businesses of Health and ANSTO Nuclear Medicine (ANM) and Waste Management Services.

Reactor Operations provides nuclear services to ANSTO for the purpose of supporting the strategic objectives of the organisation. This includes the provision of neutron beams for research and irradiation services to Health and ANM for the purpose of the manufacture and sales of radiopharmaceutical and radiochemical products.

Waste Management Services is responsible for the safe, compliant and effective management of legacy, current and future anticipated radioactive waste arising in line with ANSTO's strategic objectives, regulatory requirements and public expectations.

### ACCOUNTABILITIES & RESPONSIBILITIES

#### Key Accountabilities

The key accountabilities for this position include:

- Initiate and conduct scientific research aligned with ANSTO /UKAEA collaborative project by seizing opportunities for innovation and creativity.
- Take research ideas through to conclusion by looking at solutions, investigating alternatives and selecting preferred options with the aim of producing scientific outputs and contributing to planned project outcomes.
- Undertake work and associated training that is required for delivering high-quality research outputs.
- Undertake numerical modelling, measurements and analysis in support of ANSTO/UKAEA collaborative and related projects.

- Communicate the results of research both within ANSTO and across the scientific community.
- Work collaboratively with senior researchers, and interact constructively with researchers and technical personnel from across ANSTO
- Publish scientific results and develop personal professional networks with other local, national and international research groups and industry.
- Drive continuous improvement by encouraging the sharing of knowledge and experiences within ANSTO and across site.
- Uphold ANSTO's code of conduct.
- 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 Reactor Operations strategy and plans provide the context for the position.
- The position works within a framework of legislation, policies, professional standards and resource parameters. Within this framework the position has limited independence in determining how to achieve assigned objectives however will be constrained by the project deliverables and timeframes.
- The position is fully accountable for the accuracy, integrity and quality of the content of advice provided, and is required to ensure that decisions are based on sound evidence. Determine own work priorities, methods and approaches within the context of agreed work plans and will consult with the line manager on issues that have an impact on the project or research theme.
- 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

The major challenges for this position include:

- Pursue the application of solutions to complex conceptual problems across multi-disciplinary boundaries.
- Proactively keep up to date with best practice and new techniques and technologies in the field.
- Exercise sensitivity to the complexity of varying challenges and competing priorities and look to find innovative ways of seeking out possible alternative solutions.
- Willingness to challenge established ways of working in favour of more productive approaches.
- Establishing communication and knowledge sharing networks with internal and external collaborators, potential clients, and stakeholders.

### KEY RELATIONSHIPS

Who	Purpose
<b>Internal</b>	
Manager	<ul style="list-style-type: none"> <li>• Receive guidance and direction</li> <li>• Provide evidence based advice and recommendations</li> <li>• Provide regular updates on key tasks, issues &amp; priorities</li> <li>• Recommend and gain endorsement for project activities and other initiatives</li> <li>• Escalate issues and propose solutions</li> </ul>
Team/Project members	<ul style="list-style-type: none"> <li>• Work effectively with team/project members and work collaboratively to contribute to achieving outcomes</li> <li>• Provide advice and analysis on a full range of matters</li> <li>• Contribute to group decision making processes, planning and goals</li> <li>• Collaborate and share accountability</li> <li>• Identify, negotiate and resolve technical conflicts</li> </ul>

Other departments	<ul style="list-style-type: none"> <li>• Report on technical development and outcomes</li> <li>• Consult regarding results and stakeholder requirements</li> <li>• Provide advice and recommendations</li> </ul>
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## POSITION DIMENSIONS

### Staff Data

Reporting Line	Reports to the Leader Nuclear Analysis, NONM or delegate
Direct Reports	Nil
Indirect Reports	Nil

### 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:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Public speaking
Radiation areas:	May be required to work in radiation areas under tightly regulated conditions Perform duties 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 <a href="#">AG-2362</a> 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
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## ORGANISATIONAL CHART

Refer to published Organisational Chart.

## KNOWLEDGE, SKILLS AND EXPERIENCE

1. PhD in a related discipline.
2. Experience in Engineering, Physics, Material Science or Applied Mathematics.
3. Highly developed written communication skills with ability to produce written work suitable for publication in high quality refereed journals.
4. Experience of stress or heat flow analysis and/or computational fluid dynamics by finite element analysis or other relevant techniques.
5. Experience of experimental measurements suitable for the validation or modelling and simulation
6. Experience in Demonstrated ability to perform independent cutting-edge research, with an excellent publication track record commensurate with experience and opportunities.
7. Proven experience in the development and maintenance of productive research relationships and networks.
8. Experience in and willingness to follow policy, procedures & guidelines

9. Demonstrated personal qualities that will add value to the work group

**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.

<b>Line Manager</b>		<b>Delegated Authority</b>	
Name:	Weijian Lu	Name:	Pamela Naidoo-Ameglio
Title:	Senior Nuclear Analyst	Title:	Group Executive Nuclear Operations and Nuclear Medicine
Signature:		Signature:	
Date:		Date:	