Australian Government

ANSTO
Science. Ingenuity. Sustainability.

POSITION DESCRIPTION

Position Title:	OPAL Project Engineer • Mechanical • Chemical / Process • Electrical • I&C
Cluster / Business Unit / Division	Nuclear Operations and Nuclear Medicine
Section or Unit:	OPAL Engineering
Classification:	Band 5/6 Linked Role
Job Family:	Engineering
Position Description Number:	PD-1673
Work Contract Type:	Professional
STEMM/NON-STEMM:	
STEMM CATEGORY:	

POSITION PURPOSE

The primary objective of the OPAL Project Engineer is to manage tasks and activities relating to capital funded projects relevant to the OPAL reactor. Activities and tasks include asset acquisition, renewal, modification, redesign, upgrade or improvement projects that support the achievement of safety and reliability objectives and the ongoing compliance with safety, environmental and regulatory requirements.

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.

The Reactor Operations business unit operates the OPAL reactor for the purpose of supporting the strategic objectives of ANSTO. This includes the provision of neutron beams to the Australian Centre for Neutron Scattering and irradiation services for the supply of Nuclear Medicines and scientific research.

The function of the OPAL Engineering Section is to manage the design of the OPAL Reactor including implement plant modification projects, provide engineering support and maintain engineering configurations documentation. The Opal Engineering Section supports the safety and reliability of the reactor and its associated systems, and ensure ongoing compliance with safety, regulatory and statutory requirements.

The OPAL Project Engineer reports to the relevant OPAL Engineering Group Leader (I&C or Mech / Process) and works with a team of engineers and technicians from a variety of disciplines (such as Mechanical / Process, Electrical, I&C, etc).

The position's key internal customers include OPAL System Engineers, Project Managers, OPAL Operations and Utilisation teams, OPAL Management and business units which utilise OPAL. Key internal service providers include Work Health Safety and Radiation Protection staff, ANSTO Maintenance and Engineering and OPAL Configuration Management Group. External stakeholders include regulators (e.g. ARPANSA) and external suppliers and contractors.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities Band 5

The key accountabilities for the position include:

- Prepare feasibility studies, options analyses, cost estimates and capital investment / business cases for capital investment projects / tasks.
- Management of assigned capital investment projects, or specific project tasks, including management of cost, schedule, scope and quality in accordance with project management processes and procedures.
- Undertake project engineering, including engineering design / development, design review, verification and validation, risk assessment, safety analysis, manufacturing and procurement, installation and commissioning, project completion / close-out.
- Complete QA, configuration, change management and project documentation in accordance with BMS processes and procedures
- Develop integrated logistics support provisions including management systems and processes, operation and maintenance strategies / plans, technical documentation & manuals, procedures & work instructions, training documentation, spare parts, tools and equipment.
- Ensure engineering activities and solutions comply with the OPAL operating licence, regulatory and statutory requirements, the ANSTO WHSE management system and the ANSTO / OPAL BMS.
- Consult and collaborate with a diverse range of managers, engineers, technicians, operators and scientists within ANSTO to develop comprehensive and practical engineering solutions to OPAL operating and maintenance issues.
- Undertake additional duties as required and during period of leave of other staff.

Key Accountabilities Band 6

The additional key accountabilities for the Band 6 position include:

- Undertake the above key accountabilities independently with little or no direct supervision.
- Demonstrated competence in reactor engineering through demonstrated engineering knowledge, experience and practice.
- Independently exercise sound individual judgement and apply extensive engineering knowledge and experience to troubleshoot, investigate and resolve complex engineering systems and problems.
- Utilise judgement to independently assess priorities of tasks to optimise the allocation of resources.
- Ability to lead and coordinate small teams of engineers and technicians to achieve outcomes with little or no supervision.
- Provide feedback and contribute to the process of continual improvement in safety, reliability and efficiency, and individual knowledge and competency.
- Ability to coach, mentor and co-ordinate other engineering staff.
- Undertake additional duties as required and during period of leave of other staff.

Requirements for Transition from Band 5 to Band 6:

- Minimum 2 years or equivalent experience in a similar industrial plant engineering role
- Demonstrated capability to fulfil the key accountabilities for the Band 6 position as listed above.

Decision Making

- 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.
- Determine key work priorities within the context of agreed work plans and will consult with the OPAL Engineering on complex, sensitive and major issues that have a significant impact on the business.

- 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:

- Conceiving, designing and delivering innovative & creative solutions to complex reactor plant system issues where there may be few precedents.
- Integration of systems in a complex and unique nuclear plant which requires in depth plant knowledge of the OPAL multipurpose facility
- Developing nuclear engineering knowledge and maintaining currency of professional knowledge.
- Ensuring adherence to stringent nuclear regulations and applicable codes, standards & practices including those relating to safety & nuclear technology.
- Addressing nuclear safety, radiation safety and WHS safety implications in an environment that has multiple and often conflicting requirements.
- Integrating the needs of multiple stakeholders with often conflicting requirements

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	• Receive guidance and direction • Recommend and gain endorsement for plans and goals and other initiatives
Work area team members	• Provide expert advice and analysis on a full range of matters • Contribute to group decision making processes, planning and goals
ANSTO Design and Fabrication Workshops	• Purpose • liaise with and seek advice to determine best design and fabrication options
External	
ANSTO Contract Service Providers	• engage with and provide guidance and supervision on contracted services

POSITION DIMENSIONS

The OPAL Project Engineer reports to the relevant OPAL Engineering Group Leader (I&C or Mech / Process) and works with a team of engineers and technicians from a variety of disciplines (such as Mechanical / Process, Electrical, I&C, etc).

The position's key internal customers include OPAL System Engineers, Project Managers, OPAL Operations and Utilisation teams, OPAL Management and business units which utilise OPAL.

Key internal service providers include Work Health Safety and Radiation Protection staff, ANSTO Maintenance and Engineering and OPAL Configuration Management Group. External stakeholders include regulators (e.g. ARPANSA) and external suppliers and contractors.

Staff Data	
Reporting Line	Reports to the OPAL Engineering Group Leader (I&C or Mech / Process)
Direct Reports	Nil
Indirect Reports	Nil

Financial Data (2022/2023)	
Revenue / Grants	Nil
Operating Budget	Nil
Staffing Budget	Nil
Capital Budget	500k
Assets	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)
Radiation areas:	Perform duties 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
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Obtain and maintain appropriate federal government clearance
Linked Role:	The Transition from Band X to Band X is not automatic and requires a full written submission, in addition to the attached checklist, to demonstrate how the employee meets the requirements. Transition will only occur following approvals from the Manager OPAL Engineering and General Manager OPAL Reactor.

Workplace Health & Safety	
Specific role/s as specified in AP-2362 of the ANSTO WHS Management System	All Workers Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties

ORGANISATIONAL CHART

On file

KNOWLEDGE, SKILLS AND EXPERIENCE

Band 5 level

The knowledge, skills and experience requirements for the position include:

1. Degree or higher in Engineering relevant to discipline (or equivalent Degree)
2. Technical knowledge in plant systems applicable to nuclear research reactors
3. Experience in and aptitude for preparing high quality technical and project documentation.
4. Problem solving skills and the ability to assess and resolve technical issues.
5. Excellent interpersonal and communication skills, and ability to develop and maintain productive working relationships.
6. Awareness of WHS legislation, safe work practices and safety management systems
7. Experience working under a strict quality assurance system in a tightly regulated environment.

In addition to the required knowledge skills and experience above the Band 6 level will require:

8. Industrial engineering experience in a field relevant to discipline and relating to plant systems applicable to nuclear research reactors.
9. Project management experience relevant to discipline.
10. Understanding of the principles of asset management, systems / reliability engineering and continuous improvement processes
11. Knowledge of OPAL reactor plant systems and associated procedures and regulatory processes
12. Ability to work independently with little or no direct supervision, ability to assess task priorities, manage time, meet deadlines and reliably follow through with actions.
13. Ability to lead and coordinate small teams and the ability to coach and mentor other staff.

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:	Andrew Frikken	Name:	David Vittorio
Title:	OPAL Engineering Manager	Title:	General Manager OPAL Reactor
Signature:		Signature:	
Date:		Date:	

OPAL Project Engineer Linked Role (PD-1673)
Band 5 to Band 6 Transition Checklist

Name:	
Commencement Date:	
Assessment Date:	

Note: Full written submission demonstrating and justifying how the employee meets the requirements must also be attached.

Requirements for transition	Met Criteria
Minimum 2 years or equivalent experience in a similar industrial plant engineering role	☐Yes ☐No
Demonstrated capability to fulfil the key accountabilities for the Band 6 position as listed above - supported by documented evidence	☐ Yes ☐ No

Manager Recommendation:
I have reviewed the employee's competence in accordance with Linked Role PD-1673 and certify that the employee meets all requirements for transition and recommend transition from Band 5 to Band 6 be endorsed.

Manager Name:	
Signature:	
Date:	

General Manager Assessment
I have assessed the submission and confirm that the employee meets all requirements for transition from Band 5 to Band 6

General Manager Name:	
Signature:	
Date:	