



POSITION DESCRIPTION

Position Title:	Utilisation Engineer
Cluster / Business Unit / Division	Nuclear Operations and Nuclear Medicine (NONM)
Section or Unit:	OPAL Utilisation
Classification:	Band 5/6 Linked
Job Family:	Technical
Position Description Number:	PD-0535
Work Contract Type:	Professional
STEMM/NON-STEMM:	STEMM
STEM CATEGORY:	Engineering

POSITION PURPOSE

The primary objective of the Utilisation Engineer at the OPAL Reactor is to provide professional engineering support to the Utilisation section for highly reliable neutron irradiation of industrial, medical and research target materials. This includes supporting the production section with a process and continuous improvement engineering function to enable capacity enhancements for Neutron Transmutation Doping (NTD) of Silicon and Bulk Irradiation Facilities (BIF) irradiations as well as operational support for internal customers routine access to pneumatic irradiations facilities.

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 to ANSTO Nuclear Medicine for radiopharmaceutical production and other industrial and academic customers.

The function of the OPAL Utilisation section is to provide these customers with neutron irradiation services within OPAL.

ACCOUNTABILITIES & RESPONSIBILITIES

Band 5 - Key Accountabilities

- Proactively identify and make recommendations on opportunities for continuous process improvement to Utilisation performance, and/or safety, and implement solutions to achieve improvements.
- To provide an engineering interface between OPAL Utilisation section and the OPAL Engineering and ANSTO Maintenance and Engineering (AME) project team for major capital upgrade projects. Including providing input to user requirement specifications, design review and change management documentation.
- To initiate and implement minor projects including consulting with users, developing technical solutions, preparation of investment cases, writing of change control submissions.
- To perform investigations of operational and safety events in the Utilisation section in relation to production of irradiated materials.

- Performing routine QA review and approval of Short Residence Time (SRT) and Long Residence Time (LRT) irradiations for authorised users of the pneumatics facilities.
- Coordination and liaising with internal customers and users in connection with irradiations performed in the NAA and DNAA facilities.
- Ensure Utilisation engineering activities and solutions comply with the OPAL operating licence, regulatory and statutory requirements, the ANSTO safety management system and the OPAL Business Management System (BMS).
- Contribute as a team member to major projects within Nuclear Operations.
- Contribute to the design and development of irradiation rigs and target canning styles to allow expanded production and meet developing irradiation needs.
- Supporting the review, development and maintenance of the Target and Canning (T&C) specification register for target and canning approvals.
- To perform periodic review, update and development of relevant Utilisation section BMS documentation as part of continuous improvement and to ensure compliance with the quality system.
- Assist with preparation and participation in internal/external management system or regulatory audits in the Utilisation section.
- Participation in the day-to-day planning for the OPAL reactor including, attendance at morning meetings and input into shutdown planning and maintenance tasks requiring utilisation support.
- As required to assume the role of Responsible Officer from the Utilisation section for major or complex maintenance tasks and/or implementation of special projects.
- If requested to perform an independent review of the OPAL Production Irradiation Schedule.
- Undertake additional duties as required and during period of leave of other staff. Including acting in the position of 'Technical and Supply Integration Leader' during periods of leave and or absence.

In addition to performing the Band 5 key accountabilities, the key accountabilities Band 6 include.

Band 6 - Key Accountabilities

- Minimum 2 years or equivalent experience performing Band 5 accountabilities.
- Undertakes the above key accountabilities independently with little or no direct supervision.
- Independently exercises sound individual judgment and applies extensive engineering / plant knowledge to troubleshoot, investigate and resolve complex problems.
- Proven ability to manage more complex engineering projects and/or significant maintenance tasks from concept to completion.
- Demonstrated ability to independently perform operational and safety incident investigation of events applying perform root cause analysis techniques.
- Demonstrated ability to lead and coordinate small teams of engineers and/or technicians to achieve outcomes with little or no supervision.
- Demonstrated ability to proactively contribute to the process of continual improvement in safety and the performance and knowledge of other individuals in the team including the ability to train, coach and mentor other staff.

Transition from Band 5 to Band 6 will occur following an assessment and recommendation from the relevant manager and approval from the General Manager OPAL Reactor. Transition is not automatic and compliance with each transition criteria will need to be demonstrated, documented, assessed and approved.

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.
- The position is fully accountable for the accuracy, integrity, and quality of the content of advice provided to the Manager and is required to ensure that decisions are based on sound evidence, but at times may be required to make effective judgements in the absence of complete information or expert advice.
- The position determines key work priorities within the context of agreed work plans and consults with the Utilisation Manager or delegate on complex, sensitive and major issues that have a significant impact.
- 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

- Ability to work independently, as well as within a team, or work without supervision after hours.
- Working within a 24/7 production environment to meet important deadlines or tight timeframes with flexibility when plans or schedule changes are required.
- Establishing and maintaining of strong working relationships within the OPAL teams and with other ANSTO enabling groups and customers.
- Being responsive to customer requests for pneumatic facilities irradiations and QA review and approval of requests in an agreed timeframe.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Utilisation Manager or delegate (Production Manager or Technical and Supply Integration Leader)	<ul style="list-style-type: none"> • Receive guidance and direction • Provide expert, authoritative and evidence based advice • Recommend process improvements and participate in continuous improvement initiatives • Approve significant projects, changes, expenditure • Set objectives, assess performance and provide feedback
Utilisation staff (Production Coordinator, Operators, Support Officers, T&C Technicians)	<ul style="list-style-type: none"> • Willingness to work in a team environment • Maintain active involvement in team activities and improvements • Resolve production conflicts and suggest improvements • Report on issues related to systems and processes • Report on issues related to the execution of the production schedule
OPAL Technical Support, Operations, Engineering, Maintenance, Nuclear Safeguards, Health Physics and other divisions within ANSTO	<ul style="list-style-type: none"> • Effectively participate in multi-team activities • Strong verbal and written communication skills • Liaise with other teams regarding production and system issues • Maintain relationships to ensure quality products are delivered • Be actively involved in OPAL shutdowns and other major projects as required
Internal Stakeholders (AME, ANSTO Health, ANM, Silicon, NSTLI)	<ul style="list-style-type: none"> • Understand stakeholder requirements and expectations • Coordinate and liaise with stakeholders regarding schedule changes if required

- Demonstrate flexibility to accommodate sudden changes and quick response to unplanned events
- Achieve required product quality and maintain DIFOT
- Maintain and improve customer – supplier relationships

POSITION DIMENSIONS

The Utilisation Engineer reports to the Utilisation Manager, OPAL Utilisation section. The role is deployed within Nuclear Operations and is central to highly reliable neutron irradiation of industrial, medical and research target materials.

Staff Data	
Reporting Line	Reports to the Utilisation Manager
Direct Reports	Nil
Indirect Reports	Nil

Special / Physical Requirements	
Location:	<ul style="list-style-type: none"> • Lucas Heights • Working in different areas of designated site/campus as needed
Travel:	<ul style="list-style-type: none"> • The position requires the ability to travel to and from work location
Physical:	<ul style="list-style-type: none"> • Office-based physical requirements (sitting, standing, movement around office and site, extended hours working at computer) • Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	<ul style="list-style-type: none"> • May be required to work in radiation areas under tightly regulated conditions • 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:	<ul style="list-style-type: none"> • Willingness to work extended and varied hours based on operational requirements • After hours work may be required for short and infrequent periods
Clearance requirements:	<ul style="list-style-type: none"> • Satisfy ANSTO Security and Medical clearance requirements • Obtain and maintain appropriate federal government clearance

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

ORGANISATIONAL CHART

On file

KNOWLEDGE, SKILLS AND EXPERIENCE

Band 5

1. Bachelor level degree or higher in Engineering of relevant discipline (i.e., Industrial, Mechanical, Materials, Chemical).
2. Industrial engineering experience and technical knowledge relevant to discipline.
3. Strong analytical and technical problem-solving skills, decision-making ability, and attention to detail.
4. Demonstrated leadership skills and experience in managing effective relationships with stakeholders and internal customers.
5. Experience working under a strict quality assurance system in a tightly regulated environment.
6. Excellent written and verbal communication skills and demonstrated ability to review and prepare concise and accurate reports and procedures.
7. Proactive and self-motivated and ability to work with minimal supervision and deliver outcomes effectively and on-time.
8. Willingness to proactively share knowledge, information, and insight with team members.
9. High level of computer literacy in Microsoft Office Suite (Word, Excel, Project) and use of databases (SAP desirable).
10. Knowledge of OPAL reactor irradiation plant systems, associated procedures, regulatory processes and safety case is desirable.

In addition to demonstrating strong knowledge, skills and experience at a Band 5, the Band 6 position also requires:

1. Significant industrial engineering experience and technical knowledge relevant to discipline.
2. Understanding of the nuclear processes that take place during neutron irradiation of isotopes and materials in a reactor.
3. Proven ability to implement continuous improvement projects to initiate, manage, coordinate, and meet objectives within scope, time and budget.
4. Experience leading and coordinating small teams of staff, including motivating, coaching and mentoring 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:	Chris Humphrey	Name:	David Vittorio
Title:	Utilisation Manager	Title:	General Manager
Signature:		Signature:	
Date:		Date:	

Utilisation Engineer Linked Role (PD-0535)

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
Significant industrial engineering experience and technical knowledge relevant to discipline.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Understanding of the nuclear processes that take place during neutron irradiation of isotopes and materials in a reactor.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Proven ability to implement continuous improvement projects to initiate, manage, coordinate, and meet objectives within scope, time and budget.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Experience leading and coordinating small teams of staff, including motivating, coaching and mentoring staff.	<input type="checkbox"/> Yes <input type="checkbox"/> No

Manager Recommendation:

I have reviewed the employee's competence in accordance with Linked Role PD-0535 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:	