



POSITION DESCRIPTION

Position Title:	Silicon Irradiations Engineer
Cluster / Business Unit / Division	Commercial Products and Services
Section or Unit:	Silicon Operations
Classification:	Band 5 / 6
Job Family:	Engineering and Technical
Position Description Number:	PD-1632
Work Contract Type:	Professional
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the Silicon Irradiations Engineer is to provide scientific and engineering advice, support the day-to-day production requirements, perform facilities' calibration, results processing and analysis, product quality monitoring, and to contribute to engineering projects in order to deliver high quality service to customers whilst maximising revenue.

In addition, at the higher level, the Silicon Irradiations Engineer is to also lead and coordinate a small team of engineers and technicians to achieve optimum production outcomes for silicon, medical and industrial radioisotopes, and deliver high quality products and customer service. Additionally, the Silicon Irradiations Engineer is to operate independently to undertake, coordinate and manage the key accountabilities both Silicon Irradiations Engineers.

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.

Commercial Products and Services includes several businesses that have a commercial focus including, ANSTO Minerals, ANSTO Radiation Services, Nuclear Waste solutions, Business Development, Silicon Irradiation, Integrated Business planning and Marketing and Sales.

Silicon Irradiation is responsible for effective management within the internal and external environments to achieve the best possible business outcome from silicon irradiations for ANSTO.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

The key accountabilities for the Band 5 position include:

- Support day-to-day operations of silicon irradiations including preparation of production plans, assignment of customer consignments and managing shipping schedules.
- Conduct analysis of irradiation results to determine optimum irradiation conditions and adjust facilities 'calibration accordingly.
- Investigate non-conformances and develop recommendations on preventative/corrective action to resolve identified issues.
- Build strong business relationships with clients through commitment to quality, achievement of outcomes and a determination to follow through.
- Liaise with customer on an ongoing basis to determine requirements, provide progress updates and resolve complaints and issues.

- Contribute to the ongoing improvement of the Silicon Quality System including the identification and development of required documentation.
- Proactively review existing work practices and quality documentation to achieve continuous improvement of processes.
- Perform calibration of new facilities/modes of irradiation.
- Undertake investigations and make recommendations to improve the facilities flux profile.
- Contribute to engineering projects related to silicon including development and commissioning of specialised equipment and software.
- Utilise Silicon Planning Software in SAP to assist with the coordination silicon operations.
- Maintain and develop awareness of technical developments within the electronics industry which may impact the operation of the NTD Silicon production.
- Undertake additional duties as required and during periods of leave of other staff.

In addition to performing all Band 5 key accountabilities, the key accountabilities for a band 6 position include:

- Develop and drive production plans for silicon, medical and industrial isotopes in alignment with the business value proposition. Continually review and reorganise production plans and activities to manage conflicting priorities
- Ensure optimised production of silicon and industrial isotopes and customer satisfaction
- Utilise expertise and sound judgement to independently resolve complex and varied problems and issues to ensure smooth production
- Assess production priorities to optimise capacity utilisation and allocation of resources in alignment with the business strategy to optimise production, revenue and customer satisfaction. Ensure efficient use of available resources.
- Organise and drive weekly production meetings for ANSTO Silicon and stakeholders.
- Drive continuous process improvement and be accountable for irradiation quality. Streamline existing processes to achieve increased productivity, improved product quality, improved process velocity.
- Manage the Silicon Quality System and NCR process to ensure compliance with ISO requirements, maintain certification, to ensure high quality and reliability of the process and product and customer satisfaction
- Ensure ongoing communication and consultation with internal/external stakeholders to foster productive relationships and communication paths
- Undertake additional duties as required and during periods of leave of other staff.

Transition Criteria

- Requirements for transition from Band 5 to Band 6:
- Minimum 2 years or equivalent experience independently and effectively performing the Band 5 accountabilities of the role
- Ability to apply required knowledge/skills/experience for a Band 6 position by exercising sound individual judgement that will not challenge the safety and reliability of the facilities and meet all regulatory requirements
- Demonstrated understanding of ANSTO Silicon business
- Proven application of comprehensive knowledge of NTD process and reactor fundamentals
- Proven ability to lead and coordinate small teams across various professions to achieve desired outcomes
- Extensive knowledge of production processes across the range of silicon, medical and industrial isotopes and the ability to coach, support and train new and other staff
- Demonstrated capability to exercise sound individual judgement and apply extensive engineering knowledge and experience to troubleshoot, investigate and resolve complex problems, with little or no supervision or guidance

- Sustained commitment to demonstrating a proactive attitude and practical application of ANSTO values including coaching and mentoring other staff, identifying and resolving issues as they arise within skills, knowledge and expertise, and proactively assisting others to meet deadlines or finish tasks in times when there is spare capacity.
- Demonstrated commitment to provide feedback and contribute to the process of continual improvement in safety, efficiency and individual knowledge and competency;
- Demonstration of ability to build and maintain strong stakeholder relationships to ensure customer requirements are met
- Demonstrated proficiency and ability to independently perform the following competencies:
 - Develop and drive production planning and review production priorities as required
 - Drive continuous improvement
- Demonstrated knowledge of ASO Quality system and ability to manage the QMS

Transition from Band 5 to Band 6 will occur following a recommendation from the Silicon Operations Manager, assessment by the Business Manager and approval from the Group Executive Commercial Products and Services. Transition is not automatic and compliance with transition criteria will need to be demonstrated and assessed.

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 the objectives of the unit, including deciding on methods and approaches, operations, and project planning in consultation with the Operations Manager – Silicon Irradiations.
- The position is required to ensure that decisions are based on sound evidence, but at times may be required to make effective judgements under pressure or in the absence of complete information or expert advice.
- Determine key work priorities within the context of agreed work plans and will consult with the Operations Manager – Silicon Irradiations on complex, sensitive and major issues that have a significant impact on the Silicon Irradiations business unit.
- 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:

- Developing a comprehensive knowledge of ASI business given the highly specialised nature of the industry and OPAL being a unique facility.
- Maintaining high levels of customer satisfaction in a highly specialised and competitive international environment.
- Assisting with the smooth operation of ASI business where operations may be impacted by factors outside of the group's control.
- Willingness to support continuous improvement and improve productivity by challenging established ways of working.
- Optimising production plans – requires juggling conflicting priorities, coordination and negotiations with different teams involved in production
- Reconciling clients demands with production constraints, while managing client expectations which requires ongoing revision of production plans to meet customers' expectations to the best ability
- Ensure product quality while having no direct control over the product while at OPAL

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager	<ul style="list-style-type: none"> • Receive guidance and direction • Recommend and gain endorsement for plans and goals and other initiatives
Work area team members	<ul style="list-style-type: none"> • Contribute to group decision making processes, planning and goals • Collaborate and share accountability • Negotiate and resolve conflicts
ANSTO Enterprise Services – Silicon Warehouse Team	<ul style="list-style-type: none"> • Liaise on matters of production planning • Liaise on matters of material quality and compliance
External	
Silicon Irradiation Customers	<ul style="list-style-type: none"> • Respond to queries promptly and accurately • Establish requirements tailored to the customer

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Operations Manager Silicon Irradiation
Direct Reports	Nil
Indirect Reports	Nil

Financial Data (2021/2022)	
Revenue / Grants	Nil
Operating Budget	Nil
Staffing Budget	Nil
Capital Budget	Nil
Assets	Nil

Special / Physical Requirements	
Location:	<p>Lucas Heights</p> <p>Working in different areas of designated site/campus as needed</p>
Travel:	<p>May be required travel to ANSTO sites from time to time</p> <p>Frequent travel to ANSTO sites within Australia</p>
Physical:	<p>Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer)</p> <p>Wearing personal protective equipment for the handling of hazardous and/or radioactive materials</p>
Radiation areas:	<p>May be required to work in radiation areas under tightly regulated conditions</p> <p>Perform duties in an area where radioactive materials are handled under tightly controlled safety conditions</p> <p>Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions</p>
Hours:	<p>Willingness to work extended and varied hours based on operational requirements</p> <p>After hours work may be required on a regular basis</p>

Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Obtain and maintain appropriate federal government clearance
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Workplace Health & Safety

Specific role/s as specified in <u>AP-2362</u> of the ANSTO WHS Management System	All Workers Officer (definitions found in appendix A of AP-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

On file.

KNOWLEDGE, SKILLS AND EXPERIENCE

The knowledge, skills and experience requirements for the Band 5 position include:

1. Degree in Engineering (Electronics, Material Science, Solid State Physics, Reactor Physics) or relevant discipline
2. Knowledge of radiation physics and semiconductor technology
3. Ability to use technology and expertise to analyse and interpret information and data to develop practical solutions
4. Excellent written and verbal communication skills including strong negotiation skills
5. Ability to establish and maintain collaborative and supportive relationships with internal and external customers
6. Business acumen and strong focus on customer service and satisfaction
7. Ability to work independently and as part of a team
8. Ability to develop and introduce innovative approaches to improving processes and practices

The knowledge, skills and experience requirements for the Band 6 position include:

1. Demonstrated experience in the role of Silicon Irradiations Engineer
2. Comprehensive knowledge of NTD process and reactor fundamentals
3. Sound understanding of ANSTO Silicon business
4. Ability to lead and coordinate small production teams across various professions to achieve desired outcomes
5. Ability to exercise sound individual judgement and apply extensive engineering knowledge to resolve technical and production issues
6. Sound conflict resolution and problem solving skills
7. Sound communication, listening and analytical skills backed by strong attention to detail.
8. Ability to build and nurture strong work and business relationships
9. Ability to influence

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:	Vitali Polonski	Name:	Director – ANSTO Businesses
Title:	Operations Manager Silicon Irradiation	Title:	Jayne Senior
Signature:		Signature:	
Date:		Date:	

Silicon Irradiations Engineer Linked Role (PD-1632)

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 independently and effectively performing the Band 5 accountabilities of the role	<input type="checkbox"/> Yes <input type="checkbox"/> No
Ability to apply required knowledge/skills/experience for a Band 6 position by exercising sound individual judgement that will not challenge the safety and reliability of the facilities and meet all regulatory requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrated understanding of ANSTO Silicon business	<input type="checkbox"/> Yes <input type="checkbox"/> No
Proven application of comprehensive knowledge of NTD process and reactor fundamentals	<input type="checkbox"/> Yes <input type="checkbox"/> No
Proven ability to lead and coordinate small teams across various professions to achieve desired outcomes	<input type="checkbox"/> Yes <input type="checkbox"/> No
Extensive knowledge of production processes across the range of silicon, medical and industrial isotopes and the ability to coach, support and train new and other staff	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrated capability to exercise sound individual judgement and apply extensive engineering knowledge and experience to troubleshoot, investigate and resolve complex problems, with little or no supervision or guidance	<input type="checkbox"/> Yes <input type="checkbox"/> No
Sustained commitment to demonstrating a proactive attitude and practical application of ANSTO values including coaching and mentoring other staff, identifying and resolving issues as they arise within skills, knowledge and expertise, and proactively assisting others to meet deadlines or finish tasks in times when there is spare capacity.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrated commitment to provide feedback and contribute to the process of continual improvement in safety, efficiency and individual knowledge and competency;	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstration of ability to build and maintain strong stakeholder relationships to ensure customer requirements are met	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrated proficiency and ability to independently perform the following competencies: <ul style="list-style-type: none"> - Develop and drive production planning and review production priorities as required - Drive continuous improvement 	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrated knowledge of ASO Quality system and ability to manage the QMS	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach written submission demonstrating and justifying how the employee meets each of the requirements.

Supervisor Recommendation

I have reviewed the employee’s competence in accordance with Linked Role PD-1632 and certify that the employee meets all requirements for transition and recommend transition from Band 5 to Band 6 be endorsed.

Supervisor Name & Title:	
Signature:	
Date:	

Business Manager Assessment

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

Business Manager Name:	
Signature:	
Date:	

Group Executive Commercial Products and Services

I have reviewed all information and approve transition from Band 5 to Band 6.

Group Executive Name:	
Signature:	
Date:	
Effective Date of transition:	