POSITION DESCRIPTION

Position Title:	Operational Technology System Engineer
Cluster / Business Unit / Division	Information Technology
Section or Unit:	Cyber Security and Operational Technology
Classification:	Band 5/6 Linked
Position Description Number:	PD-2084
Work Contract Type:	Professional
STEMM/NON-STEMM	STEMM

POSITION PURPOSE

The OT System Engineer is a key role in relation to ANSTO's OT asset performance and cyber security management, ensuring that operating, maintenance and capital investment strategies for ANSTO's landmark facilities are optimised through sound decision making and planning, and continuously improved through feedback of operating experience and data. It also includes a level of responsibility for the engineering design and configuration of OT systems to support safety, security, reliability and maintainability requirements. As the organisation's nominated resident expert, the System Engineer / Strategist has an appropriate level of expertise in relation to allocated OT systems and equipment, with an overall understanding of the drivers and limitations of system reliability and the ability to provide sound technical support and advice to operations maintenance and IT functions.

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.

One function of the Cyber Security and Operational Technology Team is to provide system engineering support for a variety of ANSTO's radiopharmaceutical manufacturing, waste handling and scientific research facilities so as to optimise the safety, security, and reliability performance of their OT systems, and ensure ongoing compliance with safety, security, regulatory and statutory requirements.

The OT System Engineer reports to the Operational Technology Manager. The OT System Engineer works with a team of engineers and technicians from a variety of disciplines (such as Mechanical / Process, Electrical, I&C, etc) at the respective facilities, and with staff across the broader IT division.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- Responsible for reliable delivery, maintenance and support of Operational Technology systems, including after-hours support for incident support and resolution

- Assume delegated responsibility for engineering design and configuration, and for providing decision support on maintenance and capital investment strategies, for the relevant assigned plant and other allocated OT systems.

- Formulate and document recommended maintenance and capital investment strategies for relevant OT systems in collaboration with asset owners, managers, key advisories and other stakeholders, applying risk-based decision making practices and balancing safety, security, performance, cost and risk.

- Prepare and review documentation and systems to support the delivery of OT maintenance strategies by maintenance work centres. This includes maintenance plans, work instructions, spare parts requirements, technical manuals, data and information.
- Undertake assigned maintenance delivery and cyber security operations tasks as per system maintenance strategies and associated integrated support provisions.
- Prepare, review and present capital investment cases for relevant OT asset acquisition, redesign and renewal projects.
- Undertake assigned plant modification projects / tasks in accordance with project management, technical and change control requirements. Review and support the design and implementation of modification projects/ tasks undertaken by others to ensure outcomes are consistent with relevant facility, ANSTO and regulatory requirements.
- Review and investigate plant / system failure incidents, formulate and record lessons learned, and continually improve and optimise OT system maintenance and capital investment strategies through implementation of corrective and preventive actions.
- Monitor the effectiveness and proper implementation of maintenance strategies, review and assess asset condition and health data, proactively identify and act on risks and opportunities for improvement.
- Ensure engineering activities and solutions comply with relevant operating licences, regulatory and statutory requirements, cyber security requirements, safety management and business management systems.
- Prepare, revise and update plant drawings and documentation to ensure that OT configuration is accurately represented.
- Foster collaborative and supportive relationships with a diverse range of staff including other engineers, IT staff, operators, maintainers, scientists and contractors.
- Undertake additional duties as required and during period of leave of other staff.

Band 5 accountabilities:
- Undertakes the above key accountabilities under the guidance / supervision of direct supervisor and/or experienced team members.

Band 6 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 judgement and applies extensive engineering knowledge and experience to troubleshoot, investigate and resolve complex engineering systems and problems.
- Proven ability to manage engineering projects and/or significant maintenance tasks from concept to completion and demonstrated capability to manage larger, more complex and/or higher profile engineering projects or maintenance tasks.
- Demonstrated ability to independently develop / improve maintenance strategy and associated integrated support (maintenance plans, instructions, manuals, spare parts, etc).
- Demonstrated ability to independently investigate plant / system failure incidents and implement corrective actions.
- Utilises sound judgement to independently assess priorities of projects and tasks to optimise the allocation of resources.
- Demonstrated ability to lead and coordinate small teams of employees and contractors to achieve outcomes with little or no supervision.
- Demonstrated ability to proactively contribute to the process of continual improvement in safety and performance and the knowledge and competency of individuals in the team.
- Demonstrated ability to coach, mentor and co-ordinate others.

The transition from Band 5 to Band 6 will occur following a recommendation from the relevant supervisor, assessment by management and approval from the Chief Information and Digital Officer. Transition is not automatic and ability to perform Band 6 accountabilities will need to be demonstrated and assessed.

Decision Making

- The ANSTO Asset Management Policy, the ANSTO Strategic Asset Management Plan and the ANSTO Cyber Security Management Framework provide the context for the position from an Asset Management and cyber security perspective.
- The ANSTO values, ANSTO corporate plan, facility Business Management Systems and the IT Business Management System provide the context for the position from a business perspective.
- The position works within a framework of legislation, policies, professional standards and business management system manuals, procedures and instructions. 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 Asset Managers and Service Providers, and 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.
- The position assesses and determines key work priorities within the context of agreed work plans and consults with the manager on complex, sensitive and major issues that have a significant impact on the 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 innovative & creative solutions to OT system issues where there may be few precedents, and involving diverse stakeholders with often conflicting requirements.
- Developing and maintaining knowledge of the plant and operations of complex, specialised and one of a kind facilities with nuclear or radiological considerations assigned.
- Ensuring stringent nuclear and cyber security regulations and applicable codes & practices are adhered to, including those relating to safety & nuclear technology.
- Managing and prioritising a high workload of project, operations and maintenance-based tasks often with tight deadlines imposed by divisional and external schedules.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	- Provide guidance and direction, facilitate organisational alignment - Provide expert, authoritative and evidence based advice - Make decisions based on advice / recommendations provided - Negotiate and report on budgets and resources consistent with strategic plans and goals - Approve significant projects, changes, expenditures - Set objectives and assess performance
Work area team members	- Provide expert advice and analysis - Contribute to group decision making processes, planning and goals - Collaborate and share accountability

	• Negotiate and resolve conflicts
Other departments (name)	• Nuclear Operations and Nuclear Medicine
	• ANSTO Maintenance & Engineering
External	
Suppliers	• Provide goods and services
Regulators	• Provide license and conditions

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Operational Technology Manger
Direct Reports	Nil
Indirect Reports	Nil

Special / Physical Requirements	
Location:	Lucas Heights
Travel:	• Travel is not a requirement of the role, but opportunities to travel both internationally and nationally may arise from time to time to participate in activities such as training, conferences, collaboration projects, supplier visits, etc.
Physical:	• Office-based physical requirements (sitting, standing, minimal manual handling, 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:	• 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:	• Willingness to work extended and varied hours based on operational requirements • After-hours work may be required for short and infrequent periods, including return to site. • Required to participate on an on-call roster
Clearance requirements:	• Satisfy ANSTO Security and Medical clearance requirements • Obtain and maintain appropriate federal government clearance

Workplace Health & Safety	
Specific role/s as specified in AG-2362 of the ANSTO WHS Management System	All Workers Officer (definitions found in appendix 1 of AG-2362) Other specialised roles identified within the guideline that a position holder may be allocated to in the course of their duties

ORGANISATIONAL CHART

Refer to IT business management system.

KNOWLEDGE, SKILLS AND EXPERIENCE

Knowledge / Skill / Experience	**Essential (E) / Desirable (D)**

	Band 5	Band 6
Degree qualification relevant to discipline or equivalent experience	E	E
OT System Engineering experience and technical knowledge	E (limited)	E (extensive)
Problem solving skills and the ability to assess and resolve technical issues	E	E
Excellent interpersonal and communication skills, both verbal and written	E	E
Project management or coordination experience	D	E
Understanding of asset management principles and practices	D	E
Experience working under a strict quality assurance system in a tightly regulated environment	D	E
Understanding of safety management standards and practices	D	E
Organisational skills, ability to prioritise tasks and meet deadlines	D	E
Ability to lead and coordinate small teams of engineers and technicians, including ability to coach and mentor other staff	D	E
Knowledge of ANSTO OT facilities, systems and associated procedures and regulatory processes	D	E

Specific Criteria for Assessing Experience and Technical Knowledge for OT System Engineer

Discipline	Criteria
Operational Technology	- Knowledge and experience of relevant cyber security standards and guides including a detailed understanding of IEC 62443, NIST SP 800-82, ISO/IEC 27001, IAEA NSS 17-t Rev 1 and associated guidance, ASD ISM. - Cyber security industry accreditations (e.g.: CISSP, CEH, CISM, CISA, GIAC) are desirable. - High level of OT / ICS / SCADA experience. - High level of UNIX / Linux / Windows and virtualisation operating systems experience. - High level of IP networking and network security experience. - Experience with failure troubleshooting and incident response.

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:	Daniel Matusch	Name:	Marianne Morton
Title:	Operational Technology Manager	Title:	Chief Information and Digital Officer
Signature:		Signature:	
Date:		Date:	