



POSITION DESCRIPTION

Position Title:	Mechatronics Engineer
Cluster / Business Unit / Division	ANSTO Maintenance & engineering (AME)
Section or Unit:	Nuclear Medicine
Classification:	Band 5/6
Position Description Number:	PD-2098
Work Contract Type:	Technical
STEMM/NON-STEMM:	STEMM

POSITION PURPOSE

The primary objective of the Mechatronics Engineer is to provide quality engineering design, project management and support services to various engineering projects located in the new ANSTO Nuclear Medicine (ANM) facility with a particular focus on bespoke mechanical systems and instrumentation and control systems comprising PLC and SCADA platforms.

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.

AME provides comprehensive project management, engineering, technical and safety and reliability services and support for the site wide organisation. Within the engineering delivery arm of AME, there are six lead sections within the division: Enablers/Site Development portfolio; Nuclear Operations portfolio; Customer Advocacy & Value Chain portfolio; Decommissioning portfolio; Major Programs portfolio and the SyMo Construction portfolio.

The Nuclear Medicine portfolio provides a range of project delivery services to two major facilities on site, namely, ANSTO Health (AH) responsible for the manufacture of various radio-pharmaceutical products and also ANSTO Nuclear Medicine (ANM) which manufactures bulk Mo-99 as the parent isotope of Technetium-99m and made for both the Australian and International markets. ANSTO's ANM is a new \$168 facility comprising Mo99 production facilities for the radio-pharma market and encompasses a mix of PLC, SCADA and operational IT systems to support the production processes.

Both ANSTO Health (AH) and ANSTO Nuclear Medicine (ANM) form part of ANSTO's Nuclear Precinct.

The Mechatronics Engineer reports to the Nuclear Medicine Leader and will work on engineering projects associated within ANM (ie the client). Projects within ANM are undertaken within a Good Manufacturing Practice (GMP) environment and all work must comply with regulatory requirements such as TGA, FDA, ARPANSA, and OHSE.

From time to time, as ANM engineering work load varies, working on ANSTO Health engineering projects in a support role may also be required. The position will take day to day operational directions from Senior Project Engineer overseeing ANM engineering capex project work. Where required, ANSTO will provide additional training in GMP requirements and also working in radiation environments.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

The key accountabilities for the Band X position include:

- Provide a technically sound engineering service with the aims of satisfying technical, regulatory and quality assurance systems, client and safety requirements;
- Provide specialist mechatronic engineering service to AME/Nuclear Medicine including:
 - Design, installation, commissioning and troubleshooting of mechanical systems in support of Hot Cells, Solid and Liquid Waste systems, vacuum transfer and valving systems, heat exchanger systems, chemical pumping systems, packaging and laboratory systems within a GMP environment.
 - Understand the interface between various mechanical systems, equipment and the ANM SCADA/PLC system platform to maintain full operational preparedness and ensure the facility is fully operational and that its capabilities meet client needs. Working with AME and ANM I&C/software engineers will be required;
 - Working within the GMP environment of ANM documenting the project work and complying with the clients Change Control requirements as mandated by pharmaceutical codes of practice such as PIC/s- Pharmaceutical Inspection Co-operation Scheme.
- Interpret drawings, specifications and standards and provide advice to clients and stakeholders on design modifications to ensure operational availability of equipment;

In addition to performing all of the Band X accountabilities, the key accountabilities for a Band X+1 position include:

- Utilise matured project management methodologies to undertake design work ensuring timelines are met, budget is controlled and risks are managed. Source resources, budgets, staff and materials to undertake project including costing of the job.
- Prepare project plans for each project employing the appropriate engineering knowledge, training and experience as well as broader knowledge of the organisation's projects, products and services to the satisfaction of clients and stakeholders while assessing the risks, costs and benefits to achieve desired outcomes;
- Utilise judgement to independently assess priorities of project tasks and job flow to deliver the complete project.
- Undertake research and development to create one off solutions for clients
- Represent ANSTO nationally and internationally and build networks to develop sharing of information
- Document all project activities and maintain accurate work instructions to comply with regulatory and client requirements;
- Build and maintain productive working relationships within AME, ANM (the client) and across ANSTO and with any external suppliers;
- Fulfilling OHSE responsibilities as specified in AG-2362 of the ANSTO OHSE system.
- Undertake additional duties as required and during period of leave of other staff.

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 ANSTO values, organisational corporate plan, business plan, operational excellence program, the AME strategy on a page and Nuclear Medicine objectives provide the context for the position.
- The position is fully accountable for the accuracy, integrity and quality of the content of advice provided to the Nuclear Medicine portfolio leader, 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.
- Determine key work priorities within the context of agreed work plans and will consult with their supervisor on complex, sensitive and major issues that have a significant impact on the 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

- Ensuring the successful implementation of strategic objectives and project completion whilst managing conflicting priorities and deadlines;
- Keeping abreast of recent developments in field, ensuring continual improvement and implementation of best practise;
- Improving efficiency of operations by reducing downtime;
- Working within a nuclear manufacturing plant within is operational with tight timelines for production and shutdowns;
- Application of mechatronics skills to provide innovative and effective solutions to engineering projects and problems;
- Working within a GMP pharmaceutical environment.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	<ul style="list-style-type: none"> • Receive guidance and direction
Work area team members	<ul style="list-style-type: none"> • Contribute to group decision making processes, planning and goals • Collaborate and share accountability • Provide support across the implementation of systems and organisational strategy
Direct Reports	<ul style="list-style-type: none"> • N/A
ANSTO Maintenance & Engineering	<ul style="list-style-type: none"> • Provide advice and support • Develop and maintain networks to enable effective and efficient transactions between the groups
External	
Equipment Suppliers	<ul style="list-style-type: none"> • Specify and purchase appropriate equipment
Regulators	<ul style="list-style-type: none"> • Participate in Audits as required

POSITION DIMENSIONS

The position may work as part of a team on projects within divisions or organisation wide.

Staff Data	
Reporting Line	AME Portfolio leader or his delegate
Direct Reports	Nil
Indirect Reports	Nil
Financial Data (2015/2016)	
Revenue / Grants	N/A
Operating Budget	N/A
Staffing Budget	N/A
Capital Budget	Will manage capital projects and budgets at the Band X+1 level
Assets	N/A
Special / Physical Requirements	

Location:	Lucas Heights / Camperdown / Clayton Working in different areas of designated site/campus as needed
Travel:	May be required to travel to other ANSTO sites from time to time Infrequent overseas flights for training/conferences or Factory acceptance tests as required
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Labour intensive physical requirements (sitting, standing, frequent manual handling) Standing for long periods Frequent movements (climbing, stooping, kneeling, crouching, crawling) Industrial facility physical requirements (lifting, standing for long periods, operating machinery, equipment and manipulators) 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
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 AP- All Workers 2362 of the ANSTO WHS Management System

Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties

ORGANISATIONAL CHART

As per published organisational chart

KNOWLEDGE, SKILLS AND EXPERIENCE

1. Degree or higher in Mechanical / Mechatronics Engineering or related field as required or equivalent experience;
2. Significant experience in the application of mechatronics engineering knowledge, and in particular Automation/PLC Systems;
3. Extensive experience in maintenance of plant, equipment and systems;
4. Experience advising on emergency and scheduled maintenance;
5. Prepare written procedures and instructions, and report project status to relevant stakeholders;
6. Experience in project management and demonstrated capability to successfully manage and deliver multiple projects, taking ownership of tasks through to completion, including managing work priorities, deadlines, schedules and delegate duties to team members, as appropriate;

7. Ability to show initiative in working independently, is deadline driven and reliable in following through with actions;
8. Demonstrated ability to effectively communicate to stakeholders;
9. Knowledge and application of relevant standards and statutory requirements;

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:	Lester Bemand	Name:	Dave Filippetto
Title:	Portfolio Leader	Title:	GM, ED&SP
Signature:		Signature:	
Date:		Date:	