Australian Government

ANSTO
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POSITION DESCRIPTION

Position Title:	Mechanical Project Engineer
Cluster / Business Unit / Division	Engineering & Capital Programs (E&CP)
Section or Unit:	Engineering Delivery and Asset Management
Classification:	Band 5/6
Position Description Number:	PD-0460
Work Contract Type:	Professional

POSITION PURPOSE

The primary objective of the Project Engineer is to design and develop engineering products/solutions to meet customer requirements including manufacturing, testing, and commissioning and to ensure products conform to statutory regulations and procedures.

This position reports to the Lead Nuclear Mechanical Engineer for technical aspects and to a Program Manager for project delivery aspects.

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.

Engineering Delivery & Asset Management (EDAM) provides comprehensive project management, engineering, technical and safety and reliability services and support for the organisation. EDAM is comprised of the Engineering Delivery Office, Engineering Technical Services Group, System Safety and Reliability, Engineering Special & External Projects Group, and the Asset Management and Services Group.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

The key accountabilities for the Band 5 position include:

- Assist in the design and development of nuclear and mechanical engineering problems by applying relevant expertise and professional skills, under the supervision of a senior team member.
- Work closely with your manager to outline scope, undertake cost estimating, recommend feasible solution and ensure final product meets customer requirements by maintaining regular contact.
- Participate in the complete engineering process from concept development through to product manufacturing and commissioning to ensure customer satisfaction.
- Conceptualise and conceive design approaches to ensure engineering solutions are fit for purpose, cost-effective & practical.
- Complete 3D Modelling to develop and design concepts into virtual reality to better describe design proposals to customers, as required.
- Undertake prototype development and validation by set-up testing procedures and equipment to ensure product conforms to international standards and statutory requirements.
- Assist core projects of the Unit by undertaking design work (components of large project) under the supervision of Project Leader and support project management by ensuring timelines are met, budget is controlled and risks are managed.
- Work as part of team in delivering product solutions to customers.

- Undertake additional duties as required and during period of leave of other staff.

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

- Utilise matured project management methodologies to undertake design work including leadership of a small team, 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.
- 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.
- Maintain database of projects to ensure accurate reporting to management.

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 and organisation Corporate Plan, Business Plan and Excellence programs 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 Senior Project Manager and Program Manager 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 the Senior Project Manager and Program Manager on complex, sensitive and major issues that have a significant impact on the project.
- 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:

- Applying mechanical design principals within challenging and one of a kind environments,
- Developing nuclear engineering knowledge and maintaining currency of professional knowledge,
- Designing innovative & creative solutions as necessary where there may be few precedents,
- Ensuring stringent nuclear design regulations and applicable codes & practices are adhered to, including those relating to safety & nuclear technology.

KEY RELATIONSHIPS

Who	Purpose
Internal	
Program Manager / Senior Project Manager	• Receive guidance and direction • Provide expert, authoritative and evidence based advice • Report on budgets, schedule and resources consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives
Project team members	• Work collaboratively as part of the project team

	• Provide advice and analysis in your design discipline • Contribute to group decision making processes, planning and goals • Negotiate and resolve conflicts
Approvals officers	• Receive technical guidance from the lead nuclear mechanical engineer, and from other approvals officers as needed • Receive guidance and show compliance with internal safety bodies
External	
Regulators	• Work within agreed conditions of external regulators, in particular the nuclear regulator ARPANSA
External Suppliers	• Oversee works and provide guidance to external suppliers, contractors & consultants • Maintain positive relationships with external supplier

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Senior Project Manager
Direct Reports	Nil
Indirect Reports	Consultants, suppliers and contractors

Financial Data (2015/2016)
Revenue / Grants
Operating Budget
Staffing Budget
Capital Budget
Assets

Special / Physical Requirements	
Location:	Lucas Heights
Travel:	Role is based on site at Lucas Heights. Local travel will be required to visit suppliers and contractors May occasionally be required to travel both internationally and nationally for specific project deliverables
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
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements

Workplace Health & Safety	
	All Workers

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

ORGANISATIONAL CHART

Refer published organisation chart

KNOWLEDGE, SKILLS AND EXPERIENCE

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

1. Degree in Mechanical, Mechatronics or Nuclear Engineering or relevant discipline
2. Solid industrial engineering experience working within the nuclear and/or mechanical engineering field, including proven experience in the fabrication of mechanical systems/components
3. Understanding of quality control processes in the construction of mechanical systems
4. Ability to develop detailed working designs from requirements & concepts
5. Demonstrated capability to successfully apply theories into practice
6. Demonstrated task management skills
7. Good written & verbal communication skills
8. Ensure all work undertaken conforms to Australian Standards, quality procedures and other statutory requirements
9. Willingness to pro-actively share knowledge, information and insight with team members.

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

1. Minimum 2 years (or equivalent experience) performing Band 5 Accountabilities
2. Well developed project management skills
3. Significant industrial engineering experience working within the nuclear and/or mechanical engineering field
4. Ability to develop and introduce innovative approaches to improving processes and practices.
5. Demonstrated experience in taking responsibility for actions, projects and people within the team including motivating, coaching and mentoring staff.
6. Demonstrated capability to successfully manage and deliver high profile projects including leading a small team.
7. Demonstrated capability to carry out projects to successful completion with little supervision
8. The transition from Band 5 to Band 6 will occur following a review and consultation with management and will be subject to operational need.

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:	Jason Cowan	Name:	Con Lyras
Title:	Senior Project Manager	Title:	Group Executive Capital Programs and Chief Engineer
Signature:		Signature:	
Date:		Date:	