Australian Government

ANSTO
Science. Ingenuity. Sustainability.

POSITION DESCRIPTION

Position Title:	Principal Engineer (Mechanical/Process/Civil/I&C/Electrical)
Cluster / Business Unit / Division	Assurance, Risk and Compliance
Section or Unit:	Engineering Governance and Standards
Classification:	Band 8
Job Family:	Engineering and Technical
Position Description Number:	PD-2595
Work Contract Type:	Technical
STEMM/NON-STEMM:	STEMM
STEMM CATEGORY:	Engineering

POSITION PURPOSE

The primary objective of the Principal Engineer is to provide technical authority and strategic direction for engineering projects, ensuring that solutions are designed, implemented, and maintained to meet business goals, standards, and timelines.

The three primary objectives are:
To be the functional Lead for respective disciplines to

1. Ensure Regulatory Compliance and Safety Excellence
2. Deliver robust and reliable engineering solutions that prioritize safety, quality, and cost-efficiency.
3. Foster Technical Expertise and Team Development through strong leadership

ORGANISATIONAL ENVIRONMENT

ANSTO is a leading global nuclear science and technology organisation delivering world class research and expertise to benefit Australia and support a more sustainable future. Using nuclear science, we improve health, support industries, provide expert advice to government on nuclear technologies and help develop Australia's nuclear workforce.

The Assurance Risk and Compliance division partners with the organisation to safeguard, protect and enhance ANSTO's reputation and to ensuring that the organisation operates in an efficient, effective, safe, sustainable and ethical manner, compliant with legal and regulatory obligations. The division focuses on second- and third-line defence across the organisation.

ACCOUNTABILITIES & RESPONSIBILITIES

Key Accountabilities

- **Technical Leadership & Compliance**
  Provide technical leadership to engineering teams, ensuring delivery of high-quality, compliant services that meet safety, legislative, regulatory, and performance standards, including GMP, Radiation and Industrial Safety, Security, and Engineering Standards.
- **Engineering Oversight Across Lifecycle**
  Oversee and review engineering work across the full lifecycle, from concept design through to decommissioning, acting as the highest technical authority and ensuring quality and consistency across all design phases.
- **Engineering Governance & Standards**
  Lead the development, review, and approval of engineering designs, specifications, and technical documentation for nuclear and industrial systems and components.

- **Project & Portfolio Delivery**
  Lead and support the delivery of engineering projects, aligning with strategic objectives and contributing to divisional and organisational planning and execution.
- **Engineering Management Framework**
  Develop, implement, and maintain the Engineering Management Framework to ensure consistent application of engineering processes, governance, and assurance across ANSTO.
- **People Development & Capability Building**
  Promote skills development, knowledge sharing, and collaboration. Lead the creation of a 24-month training budget and development plan, and oversee talent reviews and succession planning.
- **Risk & Performance Management**
  Assess and manage engineering risks, costs, and benefits to ensure optimal outcomes. Monitor engineering performance, provide feedback, and contribute to broader operational initiatives.
- **Stakeholder & Regulatory Engagement**
  Interface with clients, regulatory bodies, contractors, and internal departments to ensure alignment on technical objectives. Represent engineering in tenders, audits, and compliance activities.
- **Innovation & Representation**
  Represent ANSTO's engineering discipline at national and international forums. Drive innovation by identifying and implementing new technologies, techniques, and productivity improvements.
- **Safety Leadership & Culture**
  Champion a strong safety culture by leading audits, investigations, and safety assessments. Ensure compliance with ANSTO's Business Management System and implement corrective actions as needed.

Decision Making

- The position operates with considerable autonomy and independence, working within a framework of legislation, ANSTO policies, professional engineering standards, and defined resource parameters. The role requires extensive knowledge and experience in determining engineering solutions, project planning, resource allocation, and achieving strategic and operational objectives.
- The Principal Engineer serves as the highest technical authority within the discipline for design reviews, technical assurance, and engineering approvals, ensuring compliance with safety, quality, and legislative requirements across nuclear and non-nuclear systems.
- Decisions made by the Principal Engineer directly affect the technical integrity, safety, cost, and timeliness of engineering projects, and influence ANSTO's operational performance, reputation, and compliance obligations.
- The role is fully accountable for the accuracy, integrity, and quality of advice and technical recommendations provided to the Chief Engineer and senior leadership. It is expected to apply sound, evidence-based reasoning, while also making effective judgements under pressure or when full information or expert advice is not available.
- The position contributes to business and operational planning, leads the development and implementation of the Engineering Management Framework, and makes key decisions on talent development, technical strategies, and risk mitigation.
- Key work priorities are defined within the context of ANSTO's strategic and business plans. The Principal Engineer will consult with the Chief Engineer on technically complex, politically sensitive, or high-impact matters.
- 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

- Delivering high-quality customer service and effectively managing customer expectations, particularly in a high-demand environment with limited resources and competing priorities.
- Ensuring full compliance with both internal policies and external regulatory requirements, standards, and guidelines related to engineering and safety.
- Developing technically sound and feasible solutions that require a broad range of expertise in engineering, while adhering to stringent safety and regulatory standards.
- Developing and maintaining the Engineering Management Framework, ensuring consistency and compliance across all engineering processes, governance, and technical assurance.
- Managing and overseeing the availability and capability of personnel, ensuring that the engineering team is adequately skilled and trained to meet project demands and technical requirements.
- Balancing workload and responsibilities, ensuring alignment between commitments set by the Head of Engineering Governance & standards and the project delivery goals.
- Maintaining the necessary independence and oversight for engineering delivery

KEY RELATIONSHIPS

Who	Purpose
Internal	
Manager/Executive	• Receive guidance and direction • Provide expert, authoritative and evidence-based advice • Staff engagement and quality recruitment • Negotiate and report on technical aspects consistent with strategic plans and goals • Recommend and gain endorsement for plans and goals and other initiatives
Direct Reports	• Provide leadership, guidance and support • Set performance requirements and manage performance and development • Engage to monitor trends, performance and progress against the strategic plan and evaluate further support which may be required to ensure delivery against the plan
IES	• Building and maintaining strong relationships while leading, developing, and mentoring the engineering team to foster technical excellence, knowledge sharing, career growth • Leading and overseeing the design review and approval processes, ensuring all nuclear and non-nuclear system designs comply with safety, legislative, and technical standards.
Customer facing	• Act as the SME & Principal Engineer for the specified discipline
External	
Consultants, Contractors, OEMs, ARPANSA, Comcare, IAEA, ONR and other regulatory bodies	• Building and maintaining strong external relationships with key stakeholders, including clients, regulatory bodies, contractors, and industry partners, to ensure alignment on technical objectives, project goals, and compliance with regulatory requirements.

POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Head of Engineering Governance & Standards
Direct Reports	Senior Engineer (2nd in charge to the Principal Engineer)
Indirect Reports	Lead Engineers, Senior, intermediate & Junior Engineers, Cadets

Financial Data (2025-2026)

Revenue / Grants	Nil
Operating Budget	Nil
Staffing Budget	Nil
Capital Budget	Project specific
Assets	Nil

Special / Physical Requirements	
Location:	Lucas Heights Working in different areas of designated site/campus as needed
Travel:	May be required travel to ANSTO sites, other states or overseas from time to time
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer)
Radiation areas:	May be required to work in radiation areas under tightly regulated 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-2362 of the ANSTO WHS Management System	All Workers Officer (definitions found in appendix 1 of AG-2362) Managers / Principals / Supervisors Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties All Workers

KNOWLEDGE, SKILLS AND EXPERIENCE

1. Bachelor's degree and Chartered in the relevant Engineering discipline
2. Extensive experience in engineering working in the Nuclear Industry
3. Experience in leading design teams through all phases of design
4. Extensive Leadership and management skills including coaching and mentoring.
5. Knowledge of IAEA, ONR, GMP, EU Guidelines, BP, EP, USP and ISO 9001
6. Experience in TGA, FDA, ISO and NATA audits.
7. Demonstrated ability to effectively communicate to a wide audience including tradespeople, professionals and management.
8. Demonstrated ability to Lead multidiscipline teams to deliver quality and fit-for-purpose solutions.
9. Experience in customer service/management.
10. Demonstrated ability to build a strong safety culture.
11. Business acumen, ability to think strategically and ability to influence and negotiate.
12. Strong written and verbal communication skills.

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: Con Dedousis	Name: Marianne Morton

Title:	Head of Engineering Governance and Standards	Title:	A/ Group Executive, Assurance, Risk and Compliance
Signature:		Signature:	
Date:		Date:	