Australian Government

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POSITION DESCRIPTION

Position Title:	OPAL Reactor Engineer
Institute / Division / Business Unit:	Reactor Operations
Section or Unit:	OPAL Operations
Classification:	Band 5
Position Description Number:	PD-0668
Work Contract Type:	Professional

Primary Objective

The **primary objective** of the OPAL Reactor Engineer to support the safe and efficient operation of the reactor facility. This includes the provision of engineering advice to the shift operations staff, maintenance and utilisation personnel within the facility. The Reactor Engineer provides engineering expertise and reactor engineering knowledge of reactor systems and the safety case.

Organisational Environment

ANSTO is the national organisation for nuclear science and technology. We focus on undertaking leading edge research, delivering innovative scientific services and providing specialised advice to government, industry, academia and other research organisations.

The Nuclear Operations division operates the OPAL reactor for the purpose of supporting the strategic objectives of ANSTO. This includes the provision of neutron beams to the Australian Centre for Neutron Scattering (ACNS) and irradiation services for Customer Advocacy & Value Chain for radiopharmaceutical production and other industrial and academic customers.

Position Environment

The OPAL Reactor Engineer reports to the Manager, OPAL Operations. The OPAL Operations team consists of a number of shift managers and shift operations staff responsible for the day to day operations of the OPAL reactor. The OPAL Reactor Engineer, after completion of appropriate training will be required to work on a rotating 24hr, 7 day shift roster, as required.

Whilst the role does not have any direct reports, the incumbent may be required to supervise contractors and trades people working within the reactor facility.

The OPAL Reactor Engineer role is a career development role and it is expected that reactor engineers work towards the attainment of Shift Manager authorisation.

The positions key internal customers include, but not limited to, ACNS, Customer Advocacy & Value Chain including ANSTO Health, ANM, ASI and also, NSTLI.

Key Accountabilities

The key accountabilities of the position include:

- Monitor the state of OPAL plant and equipment from a computer based monitoring system or from the field to ensure operational systems are working correctly.
- Safely and efficiently operate the OPAL reactor from within the main control room or from the field in accordance with approved procedures and instructions including functional testing of plant and equipment, performance of routine surveillances, responding to incidents and reporting.
- Attain and develop in-depth knowledge of all reactor plant and associated systems and seek opportunities to improve the safety and efficiency of reactor operations.
- Utilise engineering judgment and knowledge of the OPAL reactor to suggest potential improvements with the aim of improving plant reliability, operational processes and ensuring the safe and efficient of the OPAL reactor.
- Contribute to safe and efficient operation of the OPAL reactor through the application of technical expertise, proactive attitude and demonstration of excellent safety practices.
- Contribute to the safe and efficient operation of OPAL production facilities and processes.
- Apply engineering and reactor systems knowledge to proactively investigate, analyse and evaluate methods of improving the safety and efficiency of reactor systems.
- Lead or provide assistance to projects related to modification, testing and commissioning of reactor systems.
- Ensure work fully complies with the quality and environmental frameworks, safety procedures and standards, regulatory requirements and management procedures.
- Support the Shift Manager in coordinating the day to day work program by prioritising tasks and working as a team to ensure the production program is met.
- Support the Shift Manager in responding to operational events by utilising analytical and diagnostic skills to identify and resolve potential problems and provide proactive solutions.
- Perform defined radiological protection and surveillance tasks
- Contribute to the continuous improvement of the business management system (BMS) to ensure documentation meets regulatory requirements.
- Make recommendations to the Shift Manager regarding suggested improvements in operating practices, or project/ task outcomes.
- Co-ordinate, mentor and train other OPAL Operational staff on practices, processes and procedures, including work safety practices.
- Fulfil WHS responsibilities as specified in AG-2362 of the ANSTO WHS system.

Challenges

The major challenges for this position include:

- Maintain engineering knowledge of OPAL plant modifications and operating practices with the aim of improving the safety and efficiency of the facility.
- Attain and maintain accreditation as Reactor Engineer for the control of reactor operations.
- Work towards the attainment of Shift Manager authorisation as a career development opportunity.
- Establish strong relationships within OPAL teams and across client groups.

Special Requirements/ Physical Requirements

- This position will (after completion of appropriate training) be required to work a 24 hour/ 7 day shift rotation.
- Flexibility and ability to transition between working normal business hours and a shift rotation to support the ongoing operation of the OPAL reactor and support other engineering roles within ANSTO.
- The position requires the ability to travel to and from work whilst working a shift rotation without compromising safety of plant or person.
- The position also requires some work to be performed in radiation areas where radioactive materials are handled under tightly controlled safety conditions.
- The position requires the role holder to perform selected radiological protection and surveillance tasks.
- This is an accredited and authorised role requiring accreditation and authorisation for the control of reactor.
- Satisfy Citizenship, ANSTO Security and Medical clearance requirements.

Delegations

The levels of authority delegated to this position are those approved and issued by the Executive Director. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

Work Health, Safety & Environmental & Security Responsibilities

Individuals

Are responsible for undertaking their activities in a safe manner and cooperating with OHSE requirements of their division to improve WHS & environment in their workplace by;

- Reporting unsafe work practices, unsafe or faulty equipment, incidents and near misses;
- Working safely to reduce risk to self and others;
- Perform risk assessments and use appropriate controls to minimise or eliminate hazards; and
- Taking a proactive approach to WHS.
- Reporting security risks and events.

Knowledge, Skills and Experience

The knowledge, skills and experience for this position include:

1. Degree in Engineering or Science
2. Accreditation and authorisation as an OPAL Reactor Engineer
3. Ability to operate plant and equipment from the field or from a computer based control system
4. Demonstrated ability to proactively apply analytical and diagnostic skills to seek and resolve potential problems
5. Experience in a highly regulated operations environment
6. Knowledge of research reactor design, operating systems and safety case
7. Demonstrated knowledge in safe work practices and safety culture
8. Ability to plan and prioritise day to day work schedules
9. Work in a team environment promoting a safety first attitude
10. Strong verbal and written communication skills, including experience in the preparation of written technical reports and presentations
11. Demonstrated experience in following policy, procedures and instructions as directed by the Shift Manager or Operations Manager