



RailCorp

TITLE: Design Engineer (Electrical)

LEVEL: Advice

DIVISION: Engineering Standards & Services

BUSINESS GROUP: Infrastructure Group

RAIL SAFETY: Rail Safety Worker

PRIMARY ACCOUNTABILITY

Provide RailCorp with technical expertise relating to the relevant sub-discipline of electrical engineering. Produce electrical designs, including assisting with the production of complex multi discipline design projects, and provide best practice engineering advice and services to RailCorp and external clients in order to maximise the safety and reliability of relevant electrical systems infrastructure and assets throughout the asset lifecycle.

ENVIRONMENT

Public sector rail is embarking on a period of significant change. In response to perceived and actual performance deficiencies, the NSW Government has created a new rail corporation (RailCorp NSW) intended to deliver improvements in safety, security, reliability and cleanliness of the rail network. RailCorp NSW is central to the Government's transport reform agenda. Critical to these reforms is a management structure and team that will work co-operatively to deliver a turnaround in asset management, safety culture, customer service culture and financial performance throughout RailCorp NSW.

RailCorp NSW is a State Owned Corporation required to operate on a sound commercial basis to meet its stakeholders' expectations, focusing clearly on delivery for its passenger customer base. In summary, the requirements and expectations of RailCorp NSW amount to a significant change from the traditional performance of the former rail entities to ensure a safe, secure, clean, reliable and customer focused rail network.

SAFETY ACCOUNTABILITIES

- Actively promote and implement the RailCorp NSW Safety Management System in compliance with the Rail Safety Act to ensure a safe and reliable rail network.
- Implement personal safety accountabilities in compliance with Railcorp's Safety Management Plan, to ensure a safe and reliable rail network.
- Actively enforce RailCorp NSW's OH&S policy and procedures to ensure compliance with OH&S and Injury Management legislation and promote the development of a safe working culture.
- Promote and implement Railcorp's environmental policies and procedures in order to minimize the negative impact of Railcorp's business activities on the environment.
- Ensure all agreed safety indicators are met.
- Actively monitor systems performance and manage risk factors that can adversely affect the performance of the systems and assets.

ACCOUNTABILITIES:

- Contribute to the development of engineering standards, policies, procedures and instructions to ensure they are fit for purpose to support the safe, reliable and cost effective management of RailCorp's assets through their lifecycles.
- Provide engineering advice and services to RailCorp and external clients to assist them in the delivery of quality, timely and cost effective infrastructure solutions.
- Develop and produce relevant electrical engineering designs and associated documentation.
- Identify, develop and communicate engineering innovations relating to the relevant electrical sub-discipline technology, to facilitate the provision of safe and commercially smart solutions to RailCorp's engineering problems.
- Participate in investigations as required, and prepare draft technical investigation reports and technical specifications.
- Assist in tender preparation for RFT submissions, through the provision of expert technical advice throughout the process.
- Participate in training and accreditation programs to support the capability levels of the discipline, including the assessment of technical competencies of contractors and field employees.
- Provide assistance to team members to facilitate the achievement of project objectives
- Liaise with relevant stakeholders to establish a shared understanding of design scope, budget, time constraints, success indicators, quality, environmental and safety standards and perform design tasks accordingly.
- Contribute to team success by following project plans and scheduled works for relevant electrical engineering projects, to ensure they are completed in a financially responsible manner, to time, cost, quality and safety standards, as well as satisfying client and asset management requirements.
- Identify issues and problems related to technical specifications, budgets, safety, quality, environmental, standards and resourcing by following established procedures to minimise the impact on the delivery of design projects.
- Report to the Principal Engineer/ Group Leader and Operations Manager regarding the status of design projects so a collaborative approach can be taken to address issues as they arise.
- Contribute to the implementation of standards, policies and procedures to support an efficient, streamlined, consistent and effective approach to the discipline across RailCorp and for the rail industry in New South Wales, while complying with quality, safety and legislative guidelines/framework.
- Contribute to the implementation of RailCorp's Quality Control procedures as they apply to design and service delivery.
- Participate in relevant required training.
- Develop and engage in fair and equitable workplace practices and behaviours to ensure a discrimination free workplace, in accordance with legislative requirements.

COMPETENCIES:

Adaptability

Maintaining effectiveness when experiencing major changes in work tasks or the work environment; adjusting effectively to work within new work structures, processes, requirements, or cultures.

Building Positive Working Relationships

Developing and using collaborative relationships to facilitate the accomplishment of work goals.

Communication

Clearly conveying information and ideas through a variety of media to individuals or groups in a manner that engages the audience and helps them understand and retain the message.

Contributing to Team Success

Actively participating as a member of a team to move the team toward the completion of goals.

Customer Focus

Making customers and their needs a primary focus of one's actions; developing and sustaining positive customer relationships.

Decision Making - Identifying and understanding issues; problems, and opportunities; comparing data from different sources to draw conclusions; using effective approaches for choosing a course of action or developing appropriate solutions; taking action that is consistent with available facts, constraints, and probable consequences.

Gaining Commitment

Using appropriate interpersonal styles and techniques to gain acceptance of ideas or plans; modifying one's own behaviour to accommodate tasks, situations and individuals involved.

Innovation

Generating innovative solutions to work situations; trying different and novel ways to deal with work problems and opportunities.

Planning and Organising - Establishing courses of action for self and others to ensure that work is completed efficiently.

Quality Orientation

Accomplishing tasks by considering all areas involved, no matter how small; showing concern for all aspects of the job; accurately checking processes and tasks; being watchful over a period of time.

Technical/Professional Knowledge and Skills

Having achieved a satisfactory level of technical and professional skill or knowledge in position-related areas; keeping up with current developments and trends in areas of expertise.

Work Standards

Setting high standards of performance for self and others; assuming responsibility and accountability for successfully completing assignments or tasks; self-imposing standards of excellence rather than having standards imposed.

QUALIFICATIONS:

Tertiary qualifications in electrical engineering, a relevant discipline, or equivalent experience.

KNOWLEDGE/EXPERIENCE REQUIREMENTS:

- Demonstrated experience (minimum of 5 years) in the relevant engineering discipline within a comparable public or private sector organisation
- Demonstrated experience in electrical design, construction and maintenance within the relevant electrical engineering sub-discipline
- Demonstrated understanding and application of: risk assessment; design principles for hazard controls; requirements for consultation when making changes that affect safety; and RailCorp Safety Management System.
- Experience producing and checking engineering designs, comprising of specifications, technical drawings, and reports, as per the allocated competency level, within the engineering standards and services competency framework
- Ability to deliver presentations, and assist with proposal preparation and the costing of design projects.
- Sound understanding of current and emerging technologies relevant to design.
- Commercial acumen and experience
- Demonstrated experience in the use of engineering software, including an understanding of CAD, GIS, database management.
- Demonstrated experience within a rail environment (e.g. possessions, safety, programming, interfacing, and staging) and an awareness of other rail design disciplines and their operational standards.
- Sound conceptual, planning, analytical and problem solving skills and the ability to apply them in the development of relevant electrical design solutions
- Knowledge and understanding of RailCorp's business objectives, policies, and procedures for project management and those relevant to HR, safety, quality, the environment and finance on projects.
- Working knowledge or awareness of relevant codes of practice, standards, and the regulatory rail and electrical engineering environment.