

# **Engineering / Wayside System Maintenance Maintenance Manager - Guideway**

#### THE ROLE

Reporting to the Wayside Maintenance Manager, the role is responsible for managing the performance of Guideway System and Wayside Power Supply maintenance team in a cost-effective manner to Macau LRT Guideway and Wayside Power Supply System.

The job holder is responsible for developing the maintenance regime, setting up the schedule and recovery procedures to achieve the target performance of Guideway and Wayside Power Supply System with their interface equipment, within the approved cost, and to the requirements set out in the design and the specifications.

#### RESPONSIBILITIES

- Ensure the highest level of safety and reliability of the track-related interfacing works, the health and safety of his/her staff and contractors, and that such activities are planned and implemented in a manner that protects the safety and reliability of the Operational Railway.
- Act as the Maintainer, to provide requirement to complete the design of all the Guideway and Wayside Power Supply System interface works with input from relevant Project Design Section.
- Properly manage the Guideway and Wayside Power Supply System, including the interface with other Wayside
  Systems, such as Switch Machine and Traction Power Equipment; in such a manner that they are coordinated,
  controlled, administered, implemented and supervised to achieve timely completion, within the approved cost
  and in accordance with the requirements set out in the design and the specifications.
- Responsible for providing a safe, efficient and reliable railway operation at all times and to ensure that Guideway
  and Wayside Power Supply System and related works are completed in high quality with optimum efficiency
  and cost effectiveness. He/She is required to plan, implement and control the maintenance activities to meet
  departmental RAMS and other statutory requirements.
- Prepare the annual budget for the unit and exercise responsibility for budgetary control up to the level of delegated authority concerning human resources, contractors, plant and materials.
- Oversee the day-to-day maintenance activities, manage manpower and resources, monitor and review asset maintenance strategies to ensure that the targets of reliability, availability, maintainability and safety, as well as statutory requirements, are met. He/She shall oversee the handling of incidents to ensure speedy recovery.
- Coordinate with other parties for improvement / asset replacement projects, heavy maintenance programme, and review on maintenance strategy and asset performance.
- Perform effective human resources management to ensure a skilled, healthy, safe and productive workforce is built by processes of selection, training and career development and maintain a highly cohesive team.
- Perform ad-hoc duties and implement other projects as assigned.

#### REQUIREMENTS

- Bachelor's degree holder in Mechanical or Electrical Engineering or relevant disciplines.
- 6 years relevant experience with 3 years at supervisory level.
- Applicants with less work experiences may also be considered for appointment at lower grade.
- Corporate Member of HKIE or equivalent preferred.
- Strong background in mechanical system maintenance.
- Good command of communications and interpersonal skills.
- Proven management skills and used to work within a tight commercial and time constraint.
- Proficient in written and spoken English & Chinese.
- Holding of valid Macau driving license class B preferred



# **Engineering / Engineering Services Assistant Engineering Manager - Civil and Guideway**

#### THE ROLE

Reporting to the Engineering Manager, the role is to provide support in design, asset performance & lifecycle management, testing & commissioning and comprehensive engineering services for major asset replacement of Civil & Guideway System.

He or she will support the professional engineering tasks under his or her responsibilities and liaise internally and externally with other interfacing parties for the implementation of the system design review, system performance review and improvement, commissioning, improvement modification and maintenance support to achieve asset performance, pursue high safety and reliability standards.

#### RESPONSIBILITIES

- Support safety and reliability improvement, design change and implementation & asset management throughout the asset lifecycle of Civil & Guideway System.
- Support the update of design standards for the systems, prepare technical specifications to ensure asset performance in high safety & reliability standards and cope with changing needs.
- Support technical and design content of the technical specifications for new equipment, manage the design submissions for the engineering systems with design calculation review, and benchmark with industrial design standards to ensure the compliance to specifications and validation of the interfacing systems and the RAMS (Reliability, Availability, Maintainability and Safety) performance.
- Review with maintenance teams and monitor regularly the equipment performance for the ongoing improvement of the effectiveness and efficiency of the maintenance management activities.
- Provide technical support service to maintenance teams through technical investigation, feasibility studies, test
  and trials; review relevant engineering operations, maintenance standards, application of new technology and
  the best maintenance and operation practices.
- Manage the process and requirements of the statutory submission to relevant government parties for the modification works and achieve effective approval.
- Provide technical support on new extension projects to ensure that the interfacing standards of systems are met; conduct technical study in collaboration with the cross-functional expertise to identify and resolve system interface problems.
- Provide technical support on the assigned consultancy work and coordinate necessary inputs from different parties to ensure that the required work meets the necessary professional standards.
- Perform ad-hoc assignments and projects as assigned.

## REQUIREMENTS

- Bachelor Degree in Civil / Mechanical Engineering or equivalent.
- 4 years relevant working experience with 2 years at supervisory level.
- Applicants with less work experiences may also be considered for appointment at lower grade.
- Good command of written and spoken English & Chinese.
- Proven management skills and able to work within a tight commercial and time constraint.



## Engineering / Wayside System Maintenance Technical Officer - Guideway

#### THE ROLE

Reporting to Assistant Maintenance Manager - Guideway & Power (G&P), the role is responsible for implementing the operation, maintenance and engineering activities for guideway system to sustain high level of train service reliability.

The job holder will conduct fault analysis, carry out engineering studies, provide technical support, perform asset renewal, modification and improvement works for related systems to ensure that they are completed in compliance with the required safety and reliability standards. He/she is required to set up schedule and carry out recovery initiatives to achieve the target performance of guideway system, and ensure that in approved cost.

#### RESPONSIBILITIES

- Ensure the safety and reliability of the track related interfacing works, the health and safety of the work team and contractors, and that such activities are planned and implemented in a manner that protect the safety and reliability of the operational railway.
- Manage properly the guideway system in a coordinated, controlled, administered, implemented and supervised
  manner to achieve timely completion in accordance with the requirements as set in the design and the
  specifications.
- Be responsible for providing a safe, efficient and reliable railway operation and ensure the guideway system and related works are completed in high quality with optimum efficiency and cost effectiveness.
- Assist superiors in overseeing day-to-day maintenance activities, monitor and review asset maintenance strategies to ensure the target of reliability, availability, maintainability and safety (RAMS) as well as statutory requirements are met.
- Lead a team of senior technicians and contractors to perform routine maintenance, and carry out speedy failure recovery and the subsequent fault investigation and improvement actions.
- Coordinating with other parties for improvement / asset replacement projects, heavy maintenance programme, and reviewing maintenance strategy and asset performance.
- Provide supports to Assistant Maintenance Managers / Managers for performing effective human resources management to ensure a skilled, healthy, safe and productive workforce is built through the process of selection, training and career development to maintain a highly cohesive team.
- Perform ad-hoc duties and implement other projects as assigned.

### REQUIREMENTS

- High School or above with certificate of DSAL; Bachelor Degree in Mechanical / Civil Engineering or equivalent engineering disciplines is preferred.
- At least 5 years relevant working experience with 1 year at supervisory level for High School graduate; or 3 years relevant working experience with 1 year at supervisory level for relevant Bachelor Degree holder.
- Strong background in guideway system maintenance.
- Good command of both written and spoken English and Chinese.
- Proven management skills and used to work within a tight commercial and time constraint.
- Holder of valid Macau driving license class B is preferred.
- Be willing to work various shifts including weekends and holidays.



### Engineering / Wayside System Maintenance Technical Officer - Power Transmission & Distribution

#### THE ROLE

Reporting to Assistant Maintenance Manager - PT&D, the role is responsible for implementing the operation, maintenance and engineering activities for power transmission & distribution (PT&D) system to sustain high level of train service reliability.

The job holder will conduct fault analysis, carry out engineering studies, provide technical support, perform asset renewal, modification and improvement works for related systems to ensure that they are completed in compliance with the required safety and reliability standards. He/she is required to set up schedule and carry out recovery initiatives to achieve the target performance of PT&D system, and ensure that in approved cost.

#### RESPONSIBILITIES

- Ensure the safety and reliability of the track related interfacing works, the health and safety of the work team and contractors, and that such activities are planned and implemented in a manner that protect the safety and reliability of the operational railway.
- Manage properly the PT&D system in a coordinated, controlled, administered, implemented and supervised
  manner to achieve timely completion in accordance with the requirements as set in the design and the
  specifications.
- Be responsible for providing a safe, efficient and reliable railway operation and ensure the PT&D system and related works are completed in high quality with optimum efficiency and cost effectiveness.
- Lead a team of senior technicians and contractors to perform failure recovery, assist superiors in overseeing dayto-day maintenance activities, monitor and review asset maintenance strategies to ensure the target of reliability, availability, maintainability and safety (RAMS) as well as statutory requirements are met.
- Oversee incident handling to ensure speedy recovery, and carry out the subsequent fault investigation and improvement actions.
- Coordinate with other parties for improvement / asset replacement projects, heavy maintenance programme, and reviewing maintenance strategy and asset performance.
- Provide supports to Assistant Maintenance Managers / Managers for performing effective human resources management to ensure a skilled, healthy, safe and productive workforce is built through the process of selection, training and career development to maintain a highly cohesive team.
- Be responsible for operating, controlling and monitoring the PT&D system in the Control Centre, and carrying out immediate switching and isolating work when PT&D equipment fails.
- Perform ad-hoc duties and implement other projects as assigned.

#### REQUIREMENTS

- High School or above with certificate of DSAL; Bachelor Degree in Electrical Engineering / Building Services or equivalent engineering disciplines is preferred.
- At least 5 years relevant working experience with 1 year at supervisory level for High School graduate; or 3 years relevant working experience with 1 year at supervisory level for relevant Bachelor Degree holder.
- Strong background in PT&D system maintenance.
- Good command of both written and spoken English and Chinese.
- Proven management skills and used to work within a tight commercial and time constraint.
- Holder of valid Macau driving license class B is preferred.
- Be willing to work various shifts including weekends and holidays.



## **Engineering / Rolling Stock Maintenance Technician**

#### THE ROLE

Reporting to Senior Technician, the role is to perform and coordinate preventive and corrective maintenance activities on LRTs and associated depot plant / Electrical & Mechanical (E&M) equipment according to maintenance schedule in order to provide a safe, reliable and effective train service and to meet the operational objectives.

#### RESPONSIBILITIES

- Inspect, repair and replace components and equipment on LRTs and associated depot plant and E&M equipment to ensure they are properly maintained according to service standards in a timely and safely manner.
- Investigate and analyze the causes of failure and determine corresponding rectification work to ensure service availability of LRTs and other depot equipment.
- Conduct modification, tests & trials and fleet check according to instructions and requirements stated in Work Instructions and relevant engineering documents for improving service performance.
- Carry out Safety Independent Check on all safety critical items and commissioning check after contractors' work completion to ensure the operational safety.
- Complete quality documents and relevant maintenance records after work done.
- Perform shunting movement to facilitate maintenance, LRT dispatching and cleaning activities within depot.
- Conduct emergency rescue for LRTs and other rolling stocks at mainline and depot whenever required, so as to minimize impact to traffic in case of incidents.
- Perform ad-hoc assignments and projects as assigned.

## REQUIREMENTS

- Minimum 2 years relevant working experience or above; fresh graduate with relevant Bachelor Degree in Electrical / Mechanical / Building Services / Electronic Engineering or equivalent engineering disciplines are welcome.
- Able to comprehend and write simple English and good command of written and spoken Chinese.
- Holder of valid Macau driving license class B or C is preferred.
- Be willing to work various shifts including weekends and holidays.

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## **Engineering / Station Maintenance Technician**

#### THE ROLE

Reporting to the Senior Technician, the role is responsible for carrying out all in-house maintenance activities and supervising / monitoring maintenance contractors' day-to-day maintenance activities in all Stations, Depot and Wayside.

He / she will work with Senior Technicians and Supervisors to implement maintenance activities in all Stations, Depot and Wayside, including Heating Ventilation and Air Conditioning (HVAC), chilled water system, cooling tower, electrical & control system; fire detection & suppression system; Low Voltage (LV) system, Uninterruptible Power Supply (UPS), lighting; plumbing & drainage; Platform Screen Door (PSD), Automatic Fare Collection System (AFC) and Access Control System (ACS) systems; Supervisory Control and Data Acquisition (SCADA) system; elevator & escalator, communication and controls in whole line, etc.

#### RESPONSIBILITIES

- Carry out first line recovery work.
- Carry out preventive maintenance work.
- Coordinate with maintenance contractors for working on site.
- Assist or support Capital and Revenue (C&R) work.
- Arrange and conduct the re-commissioning tests.
- Ensure safe working environment of all workforces.
- Ensure maintenance work being carried out by using appropriate tools and equipment.
- Act as Competent Person and facilitate maintenance contractors to work on site safely.
- Perform ad-hoc assignments and projects as assigned.

## REQUIREMENTS

- Minimum 2 years relevant working experience or above; fresh graduate with relevant Bachelor Degree in Building Services / Electrical / Mechanical Engineering or equivalent engineering disciplines are welcome.
- Able to comprehend and write simple English and good command of written and spoken Chinese.
- Holder of valid Macau driving license is preferred.
- Be willing to work various shifts including weekends and holidays.