Phoenix Park Gas Processors Limited

POSITION DESCRIPTION

Position Identification

Position Title:	**Senior Instrumentation & Electrical (I&E) Engineer**
Department:	Operations – Maintenance (I&E)
Status:	Permanent
Position reports to:	I&E Superintendent
Position supervises:	None
Date JD Revised:	October 2026

Job Summary:

Reporting to the I&E Superintendent, the Senior Instrumentation and Electrical (I&E) Engineer provides Electrical, Instrumentation and Control Systems Engineering services to support the company's Maintenance activities and Operations capital projects. The position's key responsibility is to support the Operations Department in the planning, maintenance, problem-solving and project implementation activities. The position also provides technical advice, engineering guidance and interpretations on Instrumentation, Electrical and Control Systems to the Operations Department for maintenance activities, solutions to chronic plant problems, plant improvement projects and project initiatives and participates in engineering reviews for major growth and capital projects undertaken by the Engineering Department as required.. These activities are expected to be conducted safely, cost-effectively, and reliably and must be delivered in a manner that consistently adds value to PPGPL's overall business process. The incumbent will also provide support to PPGPL subsidiaries, affiliated companies and Business Development initiatives as required.

Dimensions:

The Senior I&E Engineer is responsible for providing specialized Instrumentation, Electrical and Control Systems engineering capability to the Operations Department and, by extension, other departments, including support for major growth and capital projects undertaken by the Company. The position has no direct reports but provides technical directions to I&E technicians and contractors in the planning, execution, testing, commissioning and close-out of maintenance, troubleshooting, plant improvement and project activities. This includes establishing the required technical approach, interpreting engineering drawings, specifications, codes and standards, reviewing work methods and technical deliverables and confirming acceptance criteria, and ensuring that work is executed safely, reliably and in accordance with approved procedures and good engineering practice.

The position exercises a high level of analytical judgement in diagnosing complex or recurring equipment and system problems, developing and evaluating engineering solutions, and producing or reviewing detailed designs, calculations, scope of work and technical recommendations. It also supports work prioritisation, provides guidance during critical plant interventions and turnarounds and mentors technical personnel. The position escalates significant technical, safety, reliability or compliance concerns to the I&E Superintendent. Technical advice on policy matters, significant deviations and issues outside the position's delegated authority is available at the level of the I&E Superintendent. The position functions within clearly defined performance expectations.

Health, Safety and Environmental Responsibility:

Every employee has a personal responsibility to exercise reasonable care for their own safety and health and that of others who may be affected by their acts or omissions. Employees are required to comply with the Company's health, safety and environmental policies, procedures and safe work practices, and to actively support the maintenance of a positive safety culture. Further guidance is contained in PPGPL's Safety Manual.

Nature & Scope:

The position reports to and operates under the general guidance of the I&E Superintendent and applies approved engineering principles, maintenance strategies, standards, procedures and regulatory requirements in support of the Company's Instrumentation, Electrical and Control Systems assets. The position operates with a level of professional independence appropriate to a Senior Engineer, exercising judgement within established Company requirements and escalating matters outside its delegated authority to the I&E Superintendent.

The position interfaces with Processing, Mechanical, Technical Services, Engineering and other internal stakeholders to coordinate priorities and provide technical input in support of maintenance, Management of Change, risk and engineering reviews and project activities. External interfaces include contractors, specialist service providers, equipment vendors, consultants, T&TEC and relevant regulatory bodies, including the Government Electrical Inspectorate.

The position may provide technical leadership within, or participate in, multidisciplinary teams and coordinates with contractor and plant personnel during projects and major plant interventions. The role is required to balance equipment reliability, process safety, regulatory compliance, operational requirements and lifecycle considerations in providing timely and technically sound engineering advice and recommendations.

Duties & Responsibilities:

1. I&E Engineering Support

I. Provides specialized Instrumentation, Electrical and Control Systems engineering support to the Maintenance Department to ensure the safe, reliable, efficient and cost-effective operation of plant assets.

II. Plans, prioritizes, coordinates and executes I&E maintenance engineering activities, studies, investigations and improvement initiatives in alignment with departmental objectives, production requirements and approved maintenance strategies.

2. Maintenance Execution & Technical Support

I. Provides technical direction and field support to I&E technicians and contractors during preventive, predictive and corrective maintenance, troubleshooting, testing, installation, modification, commissioning, start-up, shutdown and turnaround activities.

II. Provides I&E engineering support for the planning, preparation, execution and close-out of plant turnarounds, including technical input, field support and coordination with relevant plant personnel and contractors.

3. Reliability & Troubleshooting

III. Diagnoses complex, recurring or high-impact equipment failures; leads or supports root cause analyses; and develops technically sound recommendations to improve equipment availability, reliability, maintainability and lifecycle performance.

IV. Reviews plant operating events, equipment condition information, maintenance history and performance data to identify emerging risks, bad actors and opportunities for optimisation of maintenance plans, procedures, inspection frequencies and spare-parts strategies.

4. Engineering Design & Technical Standards

I. Prepares and reviews engineering designs, calculations, technical specifications, drawings, data sheets, scopes of work, cost estimates and acceptance criteria for new installations, replacements, modifications and plant improvement work.

II. Ensures that I&E engineering work complies with applicable codes, standards and regulatory requirements, including relevant IEEE, ANSI/IEEE, NESC, NFPA, NEC, NEMA, NETA, ISA, IEC and API requirements and Company-adopted standards.

5. Management of Change & Engineering Reviews

I. Initiates, evaluates and provides engineering review of proposed changes through the Company's Management of Change process, ensuring that technical, operational, maintenance, process safety, documentation and training impacts are adequately addressed.

II. Participates in HAZID, HAZOP, LOPA, P&ID, constructability, maintainability, model and other engineering or risk reviews, and ensures that actions assigned to the Maintenance I&E function are technically resolved and closed out.

6. Projects & Plant Improvements

I. Provides Maintenance Department input to capital, growth and plant improvement projects from concept through design, procurement, construction, commissioning, start-up and technical close-out, with emphasis on operability, maintainability, reliability and lifecycle value.

II. Provides technical oversight and coordination of the I&E engineering, construction and installation aspects of maintenance and capital work, monitors progress against approved scope, schedule, cost and quality requirements, and prepares technical and status reports.

7. Contractor & Vendor Coordination

I. Coordinates the work of contractors, vendors and specialist service providers during maintenance, projects, shutdowns and turnarounds; clarifies technical requirements; resolves field issues; and verifies that completed work meets approved acceptance criteria.

8. Procurement & Budget Support

II. Prepares technical documentation for the procurement of I&E equipment, materials, tools and services; provides technical clarification during tendering; evaluates bids and contracts; and makes recommendations in accordance with Company procurement procedures.

III. Assists with preparation, justification, monitoring and control of the Maintenance Department's operating and capital budgets for I&E maintenance, reliability improvements, contracted services, equipment and spares.

9. Spares & Asset Lifecycle Management

I. Supports the identification and management of critical I&E spares, obsolescence risks, repair strategies, vendor support requirements and replacement plans to sustain long-term plant availability.

10. Technical Documentation & Records

I. Ensures that drawings, equipment records, maintenance procedures, test results, settings, software backups, configuration records, commissioning dossiers and other technical documents are accurate, current and properly handed over at work close-out.

11. Operational & Technical Advisory Support

I. Provides technical advice to Operations groups and other departments on I&E equipment and systems, including support during operational upsets, critical plant interventions and emergency response, and escalates significant technical, safety, reliability, compliance, schedule or cost concerns to the I&E Superintendent.

12. Collaboration and Organizational Support.

I. Participates in committees, cross-functional teams and special initiatives, as required, in accordance with assigned responsibilities, workplans and/or team charters.

Job Specifications:

Minimum Acceptable Academic Qualifications

A Bachelor of Science (BSc) degree in Electrical and Computer Engineering or related discipline from a recognised tertiary institution.

The following certification will be an asset:

- Registered Engineer with the Board of Engineering

AND

Minimum Number of Years of Relevant Experience

Seven (7) years related working experience in I&E, Maintenance or Engineering function within the energy, natural gas or petrochemical sector, of which at least three (3) years should involve coordinating the work of teams and contractors.

OR

Minimum Acceptable Academic Qualifications

A Bachelor's Degree in Electrical and Computer Engineering or related discipline from a recognized tertiary institution and;

A registered Engineer with the Board of Engineering of Trinidad and Tobago (BOETT

AND

Minimum Number of Years of Relevant Experience

Seven (7) years related working experience in I&E, Maintenance or Engineering function within the energy, natural gas or petrochemical sector, of which at least three (3) years should involve coordinating the work of teams and contractors.

Specific Skills and Knowledge Requirements:

- Comprehensive knowledge of Instrumentation, Electrical and Control Systems engineering and maintenance within the energy, natural gas or petrochemical sector.
- Strong knowledge of maintenance and reliability practices**,** including preventive, predictive and corrective maintenance, troubleshooting, root cause analysis and condition monitoring.
- Sound knowledge of electrical power, instrumentation and control systems**,** including distribution systems, protection systems, DCS, SIS, PLCs, control valves and hazardous-area installations. Experience with Honeywell DCS and SIS platforms is an asset.
- Knowledge of functional and process safety**,** engineering risk assessment and Management of Change requirements, including HAZID, HAZOP, LOPA and SIL applications.
- Knowledge and practical application of relevant engineering codes, standards and recommended practices**,** including IEEE, NFPA, NEC, NEMA, ISA, IEC and API requirements.
- Knowledge of engineering and project management practices**,** including design, scope development, estimating, procurement, construction support, commissioning, start-up and technical close-out.
- Strong analytical, problem-solving, decision-making and communication skills**,** with the ability to prepare and review technical engineering deliverables and provide technical direction to multidisciplinary teams and contractors.

Disclaimer

"The above statements are intended to describe the general nature and level of work being performed by people assigned to this job. They are not intended to be an exhaustive list of all responsibilities, duties and skills required of personnel so classified"