Phoenix Park Gas Processors Limited

POSITION DESCRIPTION

Position Identification

Position Title:	Inspection Engineer
Department:	Operations – Maintenance (Asset Integrity & Reliability)
Status:	Permanent
Position reports to:	Asset Integrity Superintendent
Work Coordinated by:	Asset Integrity Superintendent
Position supervises:	None
Date JD Completed:	2026

Job Summary:

Reporting to the Asset Integrity Superintendent, the Inspection Engineer is responsible for ensuring the mechanical integrity and continued fitness for service of fixed equipment and piping within PPGPL's operating process facilities. The position develops, implements, and optimizes inspection, corrosion management, and Risk-Based Inspection (RBI) programs for pressure vessels, process piping, storage tanks, heat exchangers, fired equipment, pressure relief devices, and associated structures in accordance with applicable legislation, Company requirements, recognized codes and standards, and industry good practice.
The incumbent provides technical assurance for inspection work scopes, inspection findings, repair recommendations, and integrity. Responsibilities are delivered safely, reliably, and cost-effectively, with close coordination across Processing, Mechanical, Engineering, Process Safety and contractors. The incumbent will also provide support to PPGPL subsidiaries, affiliated companies and Business Development initiatives as required.

Dimensions:

The Inspection Engineer is accountable for the technical aspect of the inspection and mechanical integrity programmes supporting static equipment and piping across PPGPL's operating facilities. The role is responsible for maintaining the Risk-Based Inspection framework and ensuring that equipment degradation mechanisms, remaining life assessments, inspection effectiveness, temporary repairs, inspection deferrals and integrity recommendations are appropriately evaluated, documented and communicated to support risk-based decision-making. The position provides technical leadership in the areas of corrosion management, non-destructive examination, welding and repair quality, coatings and linings, refractory and fireproofing, insulation systems, corrosion under insulation and general fabric maintenance. The incumbent has no direct supervisory responsibility or financial authority but is accountable for the technical quality, execution, documentation and escalation of inspection and integrity activities in accordance with approved plans, budgets, statutory requirements and applicable codes and standards.

Nature & Scope:

The position interfaces extensively with Processing, Mechanical, Engineering, Process Safety, Procurement and other internal stakeholders to ensure inspection and integrity requirements are effectively incorporated into operational, maintenance and capital work activities. External interactions include regulatory agencies, inspection and non-destructive examination contractors, equipment vendors, specialist consultants, insurers and certification bodies, as required. The incumbent exercises professional judgement within approved Company policies, procedures, budgets, statutory requirements and recognized engineering codes and standards, and escalates matters with significant safety, operational, financial or compliance implications to the Asset Integrity Superintendent. The role requires balancing operational demands with inspection and integrity requirements while managing ageing assets, emerging equipment risks, changing operating conditions, regulatory obligations and competing business priorities.

In support of these responsibilities, the incumbent provides technical guidance and mentorship to Plant Inspectors and other personnel on inspection engineering principles, integrity methodologies, regulatory requirements, and industry best practices, while promoting compliance with Company safety, process safety, environmental, quality, and operational excellence requirements in the execution of all inspection and integrity activities.

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.

Duties & Responsibilities:

1. **Asset Integrity and Inspection & Programs**
   - I. Develop, implement, and continuously improve Risk-Based Inspection (RBI), Corrosion Management, Mechanical Integrity, and Asset Life Extension programs to support the safe, reliable, and efficient operation of Company assets.
   - II. Develop, review, and optimize inspection plans, inspection intervals, and examination scopes using equipment condition data, degradation assessments, Integrity Operating Windows (IOWs), and approved integrity management tools.
   - III. Coordinate and oversee inspection and integrity management activities for fixed equipment and piping systems to ensure compliance with Company requirements, regulatory obligations, and applicable industry codes and standards.

2. **Engineering Assessment & Technical Assurance**
   - I. Perform Fitness-for-Service (FFS) assessments and evaluate equipment condition, damage mechanisms, remaining life, and degradation trends to support repair, replacement, monitoring, and life-extension decisions.
   - II. Provide technical assurance and engineering review for inspection, non-destructive examination (NDE), welding, repair, coating, heat treatment, and other integrity-related activities to ensure compliance with approved standards and engineering practices.
   - III. Review and provide technical input on engineering studies, specifications, procedures, drawings, calculations, reports, and other engineering documentation relating to fixed equipment and piping assets.

3. **Risk Management & Improvement**
   I. Participate in incident investigations, Root Cause Failure Analyses (RCFAs), Process Hazard Analyses (PHAs), and other risk management activities, and support the implementation and close-out of assigned corrective and preventive actions.
   II. Support the Management of Change (MOC) process by providing inspection engineering and asset integrity input for proposed modifications to facilities, equipment, and operating conditions.

4. **Projects, Turnarounds & Contract Management**
   I. Provide inspection engineering support for projects, engineering studies, turnarounds, shutdowns, major maintenance activities, and capital works involving fixed equipment and piping assets.
   II. Develop scopes of work and provide technical support for the procurement, evaluation, and administration of inspection and asset integrity service contracts.

5. **Integrity Performance & Information Management**
   I. Monitor asset integrity performance and ensure inspection findings, integrity assessments, degradation trends, recommendations, temporary repairs, inspection deferrals, and corrective actions are accurately recorded, tracked, and reported through approved asset management and integrity systems.

6. **Technical Management & Compliance**
   I. Provide technical guidance and mentorship to Plant Inspectors and other personnel on inspection engineering principles, integrity methodologies, regulatory requirements, and industry best practices.
   II. Promote and support compliance with Company safety, process safety, environmental, quality, and operational excellence requirements in the execution of all inspection and integrity activities.

7. **Collaboration & 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 Mechanical Engineering, Materials Engineering, Materials Science, Metallurgical Engineering, Physics or a related discipline from a recognized tertiary institution, and;

- At Least 2 relevant certifications such as API 580/581, API 571, API 510, API 570, API 653, AWS CWI, CSWIP, PCN, ASNT, NACE, or AMPP.

The following will be considered an asset:

- Professional registration such as CEng or a registered Engineer with the Board of Engineering of Trinidad and Tobago (BOETT.

OR

Minimum Acceptable Academic Qualifications

- A Bachelor's degree in Mechanical Engineering, Materials Engineering, Materials Science, Metallurgical Engineering or Physics or a related discipline from a recognized tertiary institution, and;

- A registered Engineer with the Board of Engineering of Trinidad and Tobago (BOETT), and;

- At Least 2 relevant certifications such as API 510, API 570, API 653, API 571, API 580/581, AWS CWI, CSWIP, PCN, ASNT, NACE, or AMPP.

AND

Minimum Number of Years of Relevant Experience

- Minimum of seven (07) years' progressive Inspection Engineering experience in an oil and gas processing or petrochemical environment.

Specific Skills and Knowledge Requirements:

- Comprehensive knowledge of inspection engineering principles, fixed equipment mechanical integrity, corrosion management, and Risk-Based Inspection (RBI) methodologies.
- Strong knowledge of applicable industry codes, standards, and regulatory requirements governing the inspection, operation, maintenance, and fitness-for-service of fixed equipment and piping systems.
- Ability to assess equipment condition, degradation mechanisms, corrosion risks, remaining life, and integrity threats, and provide sound engineering recommendations to support asset lifecycle decision-making.
- Knowledge of non-destructive examination (NDE) techniques, welding, repairs, coatings, insulation systems, and quality assurance practices applicable to fixed equipment integrity.
- Familiarity with Process Safety Management, Management of Change (MOC), incident investigation processes, and risk management methodologies.
- Proficiency in interpreting engineering drawings, technical specifications, inspection documentation, and utilizing computerized maintenance and integrity management systems.
- Strong analytical, troubleshooting, planning, coordination, and problem-solving skills.
- Demonstrated ability to conduct Root Cause Failure Analyses (RCFA) and support risk-based decision-making.
- Effective stakeholder management, communication, technical writing, and presentation skills, with the ability to collaborate across multidisciplinary teams.
- Ability to safely perform inspection and integrity management activities at heights, within confined spaces, and in operating process facilities.

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"