

Principal Pipeline Engineer

Summary of Role

Responsible for leading all consultancy and engineering services relating to pipeline integrity and design.

Responsibilities/Duties

- Review and assessment of maintenance plans, In-Line Inspection (ILI), Cathodic Protection (CP) reviews, coating surveys, pipeline protections at road and wadi crossings, uprating and/or derating, etc.
- Complete detailed pipeline risk assessments.
- Complete pipeline emergency repair systems.
- Analyze ILI data, perform necessary verification and demonstrate accuracy and limitations of intelligent pigging.
- Perform anomaly assessment for ILI results in accordance with industry standards and determine pipeline fitness-for-service and necessary upgrades accordingly.
- Perform annual integrity reviews on critical pipelines to assess effectiveness of controls and identify threats. This shall include reviewing and analyzing of inspection & survey data, corrosion data, operation & maintenance data.
- Perform integrity assessment for non-piggable pipelines in accordance with approved direct assessment methodology and demonstrate integrity (fitness-for-service) accordingly.
- Develop integrity mitigation plans, monitor effectiveness and identify improvements.
- Develop specific restoration and replacement plans.
- Work with corrosion engineer to identify degradation mechanisms, threats, mitigation programs and effectiveness.
- Carry out and/or approve pipeline derating and uprating – assessment, methodology, calculations.
- Perform pipeline design verification.
- Perform pipeline crossing assessment and provide approvals and/or necessary assessments.

- Custodian for pipeline Risk Based Assessment, FMEA and QRAs. Initiate/perform studies, review/approve results and assess outcomes.
- Perform pipeline anomaly assessments and repairs.
- New technology and work processes for pipeline integrity management.
- Support development of young integrity engineers, as applicable.
- Support improvements to integrity work processes and promote best practices.
- Custodian for pipeline integrity management software.
- Custodian for pipeline integrity performance indicators and business plan.
- Be main focal point for pipeline integrity management in the company.
- Ensure that the safety policies and procedures are understood and adhered to as far as reasonably practicable in order to ensure a safe working environment.
- Participate in external professional activities including conference and committee work where it is consistent with the development and delivery of the business objectives.
- Assist with any other appropriate duties and responsibilities as and when required, also undertake specific projects as may be instructed by management from time to time.
- Carry out all work in accordance with the company Health, Safety, Environment and Quality Systems.
- Perform all assigned tasks to the highest professional standards with due professional diligence and care in total conformance with the Integrated Management Systems and business values, ethical and moral standards of the company.
- Provide authoritative technical assessment and interpretation of corrosion/inspection monitoring data (using databases as apt) and recommend changes in corrosion criticality analyses and monitoring/inspection programs where appropriate.

Skills/Qualifications

- B-Eng. in Mechanical Engineering or equivalent degree (Metallurgy, Chemical, Civil, Corrosion).
- Minimum 15 years' experience in Oil & Gas industry.
- Minimum 10 years in Pipeline Integrity Management including ILI assessment.

- Expert skills in integrity assessment and fitness-for-service analysis as well as acceptance criterion for corrosion and non-corrosion anomalies.
- Expert knowledge on inspection techniques and limitations.
- Good technical knowledge on materials and degradation mechanism as well as control & mitigation measures.
- Skills in integrity restoration – requirement and techniques.
- Expert knowledge on international standards: eg. ASME31.8, ASME31.8s, API-579, DNV RPF-101, API 1163, NACE 102, POF, etc.
- Excellent technical English skills - writing and speaking.
- Excellent computer skills, especially in MS Office.
- Assertive individual with excellent communication, interpersonal and cross-cultural skills.