JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Pipeline Pigging and In-Line Inspection Techniques Training Course

16 – 20 August 2027
Singapore

Pipeline Pigging and In-Line Inspection Techniques Training Course

Ref: 1753_64319 **Date:** 16 – 20 August 2027 **Location:** Singapore **Fees:** 9300 GBP

Pipeline Pigging and In-Line Inspection Techniques is a 1-week training course for pipeline integrity engineers and pipeline operations staff who prepare a Pigging and Inspection Campaign Plan for a live line. Ageing pipelines, tighter integrity expectations and fewer experienced pig-trap crews make every cleaning run and inspection survey a decision with real consequences. Jupiter Prime Training delivers this course on pipeline pigging and in-line inspection.

Why Pipeline Pigging and In-Line Inspection Matters Now

Three forces shape pigging work today. Operators are extending the life of old lines, so wall loss, dents and cracking must be found before they leak; asset owners and insurers expect evidence rather than assumptions; and experienced trap crews are retiring. An operator that runs pigs well keeps throughput steady, removes wax and debris, and gains defect data it can trust. The course rests on recognised industry practice for pigging and defect assessment.

Who Gains Most from Pipeline Pigging and In-Line Inspection

- Integrity specialists responsible for deciding when a line needs an intelligent survey
- Operations staff who isolate, pressurise and open launchers and receivers
- Corrosion engineers who link cleaning frequency to internal wall loss
- Maintenance planners who schedule pig runs around throughput and shutdown windows
- Inspection coordinators who receive vendor reports and track anomaly follow-up

Operators sending an integrity engineer and a trap operator together gain most, as both share one picture of each run.

Pipeline Pigging and In-Line Inspection Capabilities

Participants leave able to move from a dirty, unpiggable line to a surveyed one with ranked repair actions.

- Assess whether a line is piggable, from bends, valves, tees and diameter changes — line owners
- Specify utility, cleaning, gauging and intelligent pigs for a stated objective — survey budget holders
- Apply safe launcher and receiver procedures, including isolation and venting — operations supervisors
- Weigh magnetic flux leakage against ultrasonic and calliper tools for a defect type — integrity leads
- Calculate remaining strength and repair priority from reported anomaly dimensions — repair decision makers
-

Communicate run risks and contingency for a stuck pig to field crews — emergency coordinators

Key Pipeline Pigging and In-Line Inspection Terms

- Pig trap — the launcher or receiver barrel, with closure and valves, where pigs enter and leave a pressurised line.
- Gauging pig — a pig carrying a soft aluminium plate that deforms on dents or restrictions, proving the bore before a costly tool run.
- Magnetic flux leakage — an inspection method that saturates the pipe wall magnetically and senses field leakage where metal has been lost.
- Ultrasonic wall measurement — a method that times sound echoes through the pipe wall to measure remaining thickness and detect laminations or cracks.
- Anomaly list — the vendor's table of reported features with location, depth, length and orientation.
- Bypass flow — a set fraction of product passing through the pig body, slowing it in gas lines.

Pipeline Pigging and In-Line Inspection Day by Day

Day 1: Pipeline Condition and the Case for Pigging

- Deposit Types: Wax, Scale, Sand and Black Powder — Cleaning Need
- Line Piggability Survey of Bends, Tees and Valves — Retrofit Scope
- Operational Versus Inspection Pigging Objectives — Run Purpose Definition
- Throughput Loss and Pressure Drop Trends — Cleaning Frequency Choice
- Integrity Threat Register for Internal and External Defects — Survey Priority

Day 2: Utility Pigs and Cleaning Runs

- Foam, Cup, Disc and Brush Pig Selection — Deposit Removal Efficiency
- Progressive Cleaning Sequence from Soft to Aggressive Pigs — Stuck Pig Avoidance
- Gauging Plate Runs and Plate Interpretation — Readiness for Intelligent Tools
- Pig Speed, Bypass and Differential Pressure Control — Run Stability
- Debris Handling, Sampling and Disposal at the Receiver — Waste Route

Day 3: Launcher and Receiver Operations

- Trap Isolation, Depressurisation and Venting Sequence — Safe Opening Decision
- Closure Interlocks and Pressure Warning Devices — Barrier Verification
- Pig Signallers, Trackers and Above-Ground Markers — Location Confidence
- Stuck Pig Contingency and Recovery Options — Emergency Response Choice
- Pyrophoric Iron Sulphide and Toxic Gas Hazards — Crew Protection Measures

Day 4: Intelligent Inspection Tools and Their Data

- Magnetic Flux Leakage Tool Principles and Detection Limits — Metal Loss Sizing
- Ultrasonic Wall Thickness and Crack Detection Tools — Tool Selection
- Calliper and Inertial Mapping Tools — Dent and Strain Assessment
- Anomaly Lists, Probability of Detection and Sizing Tolerance — Data Confidence
- Remaining Strength Calculation for Corroded Pipe — Repair Ranking

Day 5: Practising the Pigging and Inspection Campaign Plan

- Run-to-Run Comparison of Defect Growth — Reinspection Interval Setting
- Dig Verification and Field Measurement Feedback — Vendor Data Calibration
- Repair Options: Sleeves, Clamps and Cut-Outs — Repair Method Choice
- Run Risk Assessment Combining Cleaning, Trap and Tool Hazards — Go Decision
- Pigging and Inspection Campaign Plan for a Selected Line — Approval Submission

Applying Pipeline Pigging and In-Line Inspection After the Course

- Lead a piggability walk-down of one line and list the fittings that block intelligent tools.
- Re-rank the open anomalies from the latest survey using remaining strength and growth rates.

Pipeline Pigging and In-Line Inspection Questions FAQ

What is pipeline pigging and in-line inspection and why does it matter now?

It is sending devices through a pressurised line to clean it and measure its wall from inside. It matters now because lines are ageing and defects must be found before failure.

Which roles gain most from pipeline pigging and in-line inspection training?

Integrity engineers, trap operators, corrosion specialists and maintenance planners gain most. Each decides part of when to run, which pig to send and how to act on reported defects.

How does pipeline pigging and in-line inspection differ from a general pipeline operations course?

It concentrates on the pig itself, from cleaning tool to intelligent survey, rather than on hydraulics, leak detection or cathodic protection.

What do you bring back from pipeline pigging and in-line inspection training?

You bring back a campaign plan for one of your own lines, covering cleaning sequence, tool selection, trap procedures, run risks and anomaly ranking.

Pipeline Pigging and In-Line Inspection: The Way Forward

The Pigging and Inspection Campaign Plan first informs whether a line is ready for an intelligent tool or still needs progressive cleaning. Integrity engineers and trap supervisors use it to agree run windows and contingencies. After the first survey, revisit the reinspection interval, since measured defect growth on real digs often differs from the assumptions made before the run.