MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

PIPELINE INTEGRITY MANAGEMENT

"Ensuring the Safe, Reliable, and Compliant Operation of Pipeline Assets"

Schedule

Date	Venue	Fees (Face-to-Face)
05 – 09 Apr 2026	Manama, Bahrain	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training, In-House Training

Introduction

Pipelines are critical infrastructure assets that must operate safely and efficiently throughout their lifecycle. Failures can lead to catastrophic environmental, safety, and economic consequences. An effective Pipeline Integrity Management System (PIMS) ensures proactive risk identification, maintenance planning, regulatory compliance, and long-term asset reliability.

This course delivers a comprehensive understanding of pipeline integrity management for oil, gas, and industrial pipeline systems. Participants will learn how to apply international standards (e.g., ASME, API, ISO), assess integrity threats, use monitoring and inspection technologies, and design integrity management plans. The program combines engineering principles with regulatory best practices to help organizations minimize risk and maximize operational uptime.

Objectives

By the end of this course, participants will be able to:

- Understand the components of an effective Pipeline Integrity Management System (PIMS)
- Identify pipeline failure modes and integrity threats (internal/external)
- Apply inspection, monitoring, and data analysis tools
- Develop integrity assessments and mitigation plans
- Comply with international pipeline safety and integrity regulations
- Optimize lifecycle integrity through design, operations, and maintenance integration

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Why Attend

- Prevent pipeline incidents and extend asset life through integrity-focused strategies
- Learn from real-world failures, root causes, and best practices in integrity assessment
- Apply international codes and standards to your organization’s pipeline systems
- Use inspection data to drive informed maintenance decisions
- Enhance collaboration between engineering, inspection, and safety departments

Target Audience

This program is designed for:

- Pipeline Engineers and Maintenance Supervisors
- Integrity Management and Asset Reliability Professionals
- Inspection, QA/QC, and NDT Specialists
- Operations and Safety Managers
- Regulators and Compliance Officers in the pipeline sector

Individual Benefits

Key competencies that will be developed include:

- Knowledge of integrity threats and monitoring techniques
- Interpretation of inspection reports and fitness-for-service decisions
- Planning and executing risk-based inspection and maintenance
- Integration of data from ILI, NDT, and operational parameters
- Regulatory awareness and audit readiness

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved pipeline reliability and incident prevention
- Compliance with global integrity management regulations and standards
- Enhanced inspection planning and data-driven decision-making
- Reduction of unplanned outages, leaks, and failures
- Integrated approach to pipeline lifecycle and risk management

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – PIMS frameworks, standards, and risk methodologies
- Case Studies – Analysis of pipeline incidents and regulatory actions
- Workshops – Threat assessments, inspection reviews, integrity plan design
- Peer Exchange – Challenges and solutions from real pipeline operations
- Tools – Risk matrices, ILI report formats, defect assessment templates

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Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Foundations of Pipeline Integrity

- Module 1: Pipeline Integrity Management Overview (07:30 – 09:30) • PIMS objectives, lifecycle approach, key stakeholders
- Module 2: Codes and Standards (09:45 – 11:15) • ASME B31.8S, API 1160, ISO 55000, regulatory compliance
- Module 3: Pipeline Design Factors and Material Considerations (11:30 – 01:00) • Design margin, corrosion allowances, material compatibility
- Module 4: Workshop – Build a Pipeline Integrity Framework (02:00 – 03:30) • Participants map out their current and ideal PIMS

Day 2: Threats and Risk Assessment

- Module 5: Internal and External Threats (07:30 – 09:30) • Corrosion, cracking, third-party damage, geohazards
- Module 6: Risk Assessment Methodologies (09:45 – 11:15) • Qualitative vs quantitative models, risk ranking
- Module 7: Risk-Based Inspection Planning (11:30 – 01:00) • Prioritizing segments and assets based on risk profile
- Module 8: Workshop – Perform a Threat/Risk Analysis (02:00 – 03:30) • Use a risk matrix on pipeline case scenarios

Day 3: Inspection and Monitoring Technologies

- Module 9: Inline Inspection (ILI) Tools and Limitations (07:30 – 09:30) • PIG types, metal loss detection, deformation tools
- Module 10: External Inspection and NDT Methods (09:45 – 11:15) • Ultrasonic testing, radiography, magnetic particle testing
- Module 11: Monitoring Techniques and Data Collection (11:30 – 01:00) • SCADA, pressure monitoring, acoustic sensors
- Module 12: Workshop – Interpret ILI and NDT Reports (02:00 – 03:30) • Participants review sample inspection data

Day 4: Integrity Assessment and Mitigation

- Module 13: Fitness-for-Service Assessment (07:30 – 09:30) • ASME FFS-1, remaining life estimation, defect criticality
- Module 14: Corrosion Control and Coating Systems (09:45 – 11:15) • Cathodic protection, coating inspection, repair
- Module 15: Repair Methods and Integrity Interventions (11:30 – 01:00) • Clamps, sleeves, weld repairs, isolation procedures
- Module 16: Workshop – Plan an Integrity Mitigation Campaign (02:00 – 03:30) • Design a mitigation plan for high-risk segments

Day 5: Program Management and Continuous Improvement

- Module 17: Documentation, Reporting, and Audit Readiness (07:30 – 09:30) • Recordkeeping, audit trail, regulatory inspection prep
- Module 18: Performance Monitoring and KPIs (09:45 – 11:15) • Failure rates, leak detection response, inspection backlog
- Module 19: Case Study – Pipeline Incident Analysis (11:30 – 01:00) • Learn from major failures and the role of integrity audits
- Module 20: Final Workshop – Develop a Pipeline Integrity Plan (02:00 – 03:30) • Team project to create and present a full integrity roadmap

Certification

Participants will receive a Certificate of Completion in Pipeline Integrity Management, validating their capability to design, implement, and improve pipeline integrity systems in compliance with industry standards and operational best practices.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**