MAWA EVENTS

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

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ASSET INTEGRITY – INSPECTION MAINTENANCE & REPAIR – OIL & GAS ASSETS

"Master the essential processes and practices for ensuring the integrity of oil and gas assets through effective inspection, maintenance, and repair strategies."

Schedule

Date	Venue	Fees (Face-to-Face)
03 – 07 May 2026	Manama, Bahrain	USD 3495 per delegate
07 – 11 Jun 2026	Riyadh, KSA	USD 3495 per delegate
14 – 18 Jun 2026	Doha, Qatar	USD 3495 per delegate
07 – 11 Sep 2026	Dubai, UAE	USD 3495 per delegate

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

Introduction

In the oil and gas industry, asset integrity is vital to ensuring operational safety, minimizing downtime, and maximizing asset lifecycle value. This 5-day course will equip participants with the knowledge and skills necessary to conduct effective inspection, maintenance, and repair of oil and gas assets. From pipelines to pressure vessels, valves, and storage tanks, understanding the intricacies of asset integrity management is key to maintaining operational efficiency and regulatory compliance. Participants will gain practical insights into industry best practices, tools, and techniques to assess, monitor, and optimize the integrity of assets in oil and gas operations.

Objectives

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

- Understand the principles of asset integrity management in oil and gas
- Conduct effective inspections of oil and gas assets, including pipelines, valves, and pressure vessels
- Apply industry best practices in maintenance and repair to ensure asset longevity
- Identify common failure modes and assess the risks associated with asset degradation
- Implement strategies for preventive maintenance and repair planning
- Comprehend regulatory requirements for asset integrity in oil and gas operations

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Why Attend

- Learn the importance of asset integrity management in reducing downtime and improving safety
- Acquire practical knowledge and skills to manage the integrity of oil and gas assets effectively
- Understand how to extend the life of critical assets through proper inspection, maintenance, and repair practices
- Stay updated on regulatory compliance and best practices in the oil and gas industry
- Gain insights into the tools and technologies used in asset integrity management
- Enhance your career opportunities within the oil and gas sector

Target Audience

This program is designed for:

- Asset integrity professionals and engineers in the oil and gas industry
- Maintenance and reliability managers, technicians, and supervisors
- Safety professionals involved in asset integrity management
- Engineers and project managers working in upstream, midstream, and downstream oil and gas operations
- Personnel involved in inspection, maintenance, and repair of oil and gas infrastructure

Individual Benefits

Key competencies that will be developed include:

- Ability to assess and manage the integrity of critical oil and gas assets
- Knowledge of asset failure modes and risk assessment methods
- Expertise in developing and implementing maintenance and repair plans
- Understanding of regulatory frameworks governing asset integrity in the oil and gas sector
- Enhanced ability to utilize inspection technologies and tools for asset monitoring
- Strengthened skills in improving asset performance and reducing operational costs

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- A better understanding of asset integrity management and its impact on operational efficiency
- The ability to develop and execute effective asset integrity strategies
- Enhanced capability in reducing downtime and ensuring asset reliability
- Improved management of maintenance and repair operations
- Greater knowledge of industry best practices and regulatory compliance for asset integrity

Instructional Methodology

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

- Strategy Briefings – Overview of asset integrity management and its importance in oil and gas
- Case Studies – Real-world case studies of successful asset integrity management in oil and gas operations
- Workshops – Hands-on exercises to apply inspection, maintenance, and repair techniques
- Peer Exchange – Group discussions on challenges and lessons learned in asset integrity management
- Tools – Practical tools for asset inspection, failure analysis, and maintenance planning

Course Outline

DETAILED 5-DAY 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: Fundamentals of Asset Integrity in Oil & Gas

- Module 1: Introduction to Asset Integrity Management (07:30 – 09:30)
- Key principles, lifecycle thinking, and industry overview
- AIM vs. maintenance vs. reliability
- Module 2: Regulatory Frameworks and Standards (09:45 – 11:15)
- API 580/581, ASME, ISO 55000, OSHA, and local regulations
- Module 3: Case Study – Major Failures Due to Integrity Gaps (11:30 – 01:00)
- Module 4: Workshop – Assessing Your AIM Program (02:00 – 03:30)

Day 2: Inspection Planning and Risk-Based Approaches

- Module 1: Risk-Based Inspection (RBI) Techniques (07:30 – 09:30)
- Risk matrix, consequence & probability models, risk ranking
- Module 2: Inspection Methods (NDT & Advanced Tools) (09:45 – 11:15)
- Ultrasonic testing, radiography, thermography, acoustic emission
- Module 3: Workshop – Develop an RBI Plan for Static Equipment (11:30 – 01:00)
- Module 4: Group Simulation – Criticality Analysis (02:00 – 03:30)

Day 3: Condition Monitoring, Corrosion, and Degradation

- Module 1: Condition-Based Monitoring (07:30 – 09:30)
- Vibration, oil analysis, thermography, wear detection
- Module 2: Corrosion Mechanisms and Protection (09:45 – 11:15)
- CO2, H2S, microbiological, galvanic corrosion
- Cathodic protection and coatings
- Module 3: Case Study – Corrosion Failures in Pipelines (11:30 – 01:00)
- Module 4: Workshop – Analyzing Inspection Data Trends (02:00 – 03:30)

Day 4: Repair, Remediation & Fitness-for-Service

- Module 1: Asset Repair Planning (07:30 – 09:30)
- Temporary vs. permanent repairs, API 579/ASME FFS guidelines
- Module 2: Welding, Cladding & Composite Repairs (09:45 – 11:15)
- Repair techniques for tanks, pipelines, and pressure vessels
- Module 3: Workshop – Defect Assessment & Repair Method Selection (11:30 – 01:00)
- Module 4: Group Discussion – Repair Approval and Documentation (02:00 – 03:30)

Day 5: AIM Strategy Development and Course Wrap-Up

- Module 1: Integrity KPIs, Dashboards, and Audits (07:30 – 09:30)
- Key metrics, AIM scorecards, performance reviews
- Module 2: Building an Integrity Management System (09:45 – 11:15)
- Roles, responsibilities, digital tools (EAM, CMMS, AIMS)
- Module 3: Capstone – Develop an Asset Integrity Improvement Plan (11:30 – 01:00)
- Module 4: Review, Presentations & Certification (02:00 – 03:30)

Certification

Participants will receive a Certificate of Completion in Asset Integrity Management – Oil & Gas Assets, demonstrating their proficiency in maintaining the integrity of critical oil and gas assets through effective inspection, maintenance, and repair strategies.

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.

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