



Workshop in Asset Integrity Management for the Petroleum Industry

13 – 17 September 2027
Cape Town (South Africa)



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Ref: 15309_1063100 **Date:** 13 – 17 September 2027 **Location:** Cape Town (South Africa) **Fees:** 5300 Euro

Introduction:

Asset Integrity Management AIM is a critical foundation within the petroleum industry, marrying design, maintenance, inspection, process, operations, and management principles to drive optimal investment returns. This asset integrity management AIM oil and gas workshop explores the multifaceted concept of AIM, particularly as it applies to the design, managerial, and operational integrity essential for protecting the operational systems within the oil and gas sectors.

Participants will delve into a range of topics, including sophisticated approaches to reliability-centered maintenance RCM, failure mode effects and criticality analysis FMECA, risk-based inspection RBI, static process equipment inspection, rotating equipment maintenance planning, addressing human factors challenges, and effective project management strategies.

Understanding Asset Integrity Management AIM Oil and Gas:

This workshop is designed to give participants a vital understanding and practical exposure to asset integrity management in oil and gas. Participants will gain targeted competencies that are integral for professionals seeking an asset integrity management AIM oil and gas certification.

Participants in this asset integrity management AIM oil and gas training workshop emphasize the importance of a certified approach to AIM, offering insights into the latest methodologies and techniques that effectively contribute to the maintenance and integrity of petroleum industry assets.

Targeted Groups:

Engineers and professionals in the following fields will significantly benefit from this asset integrity management AIM oil and gas workshop:

- Engineering Asset Management and Asset Integrity Management personnel.
- Technical Safety personnel.
- Engineers involved in maintenance and modification projects.
- Inspection and maintenance analysis and planning personnel.
- Project managers and project engineers.
- Technical discipline responsible personnel.

Workshop Objectives:

By the conclusion of this asset integrity management AIM oil and gas workshop, participants will:

- Understand how to manage assets in the aim oil and gas industry safely and sustainably.
- Assess and control Asset Integrity of operational assets within production and process systems.
- Perform asset integrity management on both topside and subsea systems.
- View the overall asset process from a systems engineering perspective.
- Implement adaptive technologies and techniques in engineering projects.

Targeted Competencies:

After this asset integrity management AIM oil and gas training, participants competencies will:

- Define essential guidelines for asset integrity management.
- Investigate the subsea and risk assessment framework.
- Formulate a deepwater riser and subsea asset integrity management strategy.
- Learn how to develop a robust asset integrity maintenance and repair philosophy.
- Gain insights into the interpretation of asset management.
- Explore AIM solutions for FPSOs and offshore floating facilities.
- Analyze case studies on field life extension for riser and subsea assets.
- Master the application of risk-based inspection methodologies in FPSOs and subsea facilities.

Workshop Content:

Day 1: Asset Integrity Management:

- The essential components of Asset Management and Asset Integrity Management.
- Navigating the Asset Management Landscape Process Model.
- The pillars of the Asset Management System: Policy, Strategy, and Strategic Asset Management Plans.
- Defining Asset Management Roles.
- Overview of the ISO 55000 international standard on Asset Management.
- The pathway to asset integrity management certification.

Day 2: Risk & Risk Assessment:

- Comprehensive approaches applied for asset integrity management in oil and gas
- Techniques for the identification and assessment of risk.
- Executing risk management: employing risk matrices, risk registers, and hazard logs.
- Analyzing risk at the business, system, and asset levels.
- Various methodologies for mitigating risk.
- Development of contingency plans.

Day 3: Risk-Based Maintenance:

- Understand the deterioration patterns: how assets can potentially fail.
- Map out the seven Risk-Based Maintenance RBM / Reliability-Centred Maintenance RCM steps, including Failure Mode Effects and Criticality Analysis.
- The failure behavior of onshore and offshore systems.
- Selecting appropriate maintenance tasks.
- Employing Risk-Based Inspection methods.
- Real-world application examples of AIM solutions.

Day 4: Life Cycle Management Aspects:

- Lifecycle considerations and management of an asset.
- Systems Engineering and RAMS Reliability, Availability, Maintainability, Safety specifications.
- Successful operational workflows and process improvements
- Strategies for lifetime extension of assets.
- Utilize Performance measurement and Key Performance Indicators KPIs.

Day 5: The Way Forward: Improvement Plan:

- Evaluate current Asset Management performance focused on specific aspects.
- Formulate an optimization-driven improvement plan tailored to enhance cost/benefit outcomes.

Conclusion:

By integrating these facets of asset integrity management, the workshop aims to enrich the participant's perspectives and skills, preparing them for advanced roles in the AIM petroleum industry and beyond.