Storage Tanks Integrity Management Overview

19 – 23 September 2027
Cairo (Egypt)



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Introduction

Storage Tanks Integrity Management Overview provides a structured approach to ensuring that storage tanks operate safely, reliably, and within their designed limits throughout their service life. This discipline focuses on preventing failures, minimizing leakage risks, and maintaining structural soundness through systematic assessment, risk management, and planned maintenance activities.

This course is designed for executives, team leaders, and professionals across various departments, as well as early and mid-career employees who are involved in asset oversight, operational supervision, quality management, or technical decision-making. It is particularly relevant for individuals responsible for storage facilities, asset performance, and operational continuity.

The course delivers practical value by explaining how integrity management principles can be applied to real operational environments. Participants gain a clear understanding of tank integrity risks, inspection practices, and maintenance planning, supporting improved asset reliability and controlled operational performance.

Course Objectives

This course aims to build structured knowledge and practical awareness of storage tank integrity management through the following objectives:

- Understand the fundamental principles of storage tank integrity management.
- Identify integrity requirements across the storage tank lifecycle.
- Recognize common degradation and failure mechanisms.
- Apply basic tank integrity assessment and inspection methods.
- Analyze causes of corrosion, leakage, and structural damage.
- Understand the role of maintenance in preserving tank integrity.
- Use performance indicators to monitor tank condition.
- Support informed technical and managerial decision-making.



Course Outlines

Day One: Fundamentals of Storage Tanks Integrity Management

- Definition and objectives of storage tank integrity management.
- Differences between asset management and tank integrity management.
- Core components of a tank integrity management system.
- Storage tank lifecycle stages and integrity considerations.
- Roles and responsibilities within the organization.
- Review of simple applied examples.

Day Two: Risk Identification and Integrity Threats

- Overview of risks associated with storage tanks.
- Internal and external integrity threats.
- Methods for identifying corrosion and leakage risks.
- Evaluation of failure probability and consequences.
- Use of risk assessment matrices.
- Practical exercise using a sample tank scenario.

Day Three: Maintenance and Condition Monitoring

- Preventive and corrective maintenance strategies.
- Role of maintenance in preventing structural degradation.
- Monitoring key integrity performance indicators.
- Analysis of inspection and maintenance records.
- Relationship between maintenance outcomes and integrity status.
- Applied case study discussion.

Day Four: Procedures, Systems, and Governance

- Importance of documented integrity procedures.
- Standardization of inspection and maintenance activities.
- Management oversight and accountability.
- Change management and its impact on tank integrity.
- Documentation and reporting requirements.
- Review of structured operational procedures.



Day Five: Evaluation and Continuous Improvement

- Comprehensive review of course concepts.
- Storage tank integrity evaluation tools.
- Identification of gaps and improvement opportunities.
- Development of practical improvement plans.
- Review of evaluation findings.
- Final applied activity.

Why Attend This Course: Wins & Losses!

- Clear and structured understanding of storage tank integrity management.
- Practical content applicable to operational environments.
- Improved ability to identify and manage integrity risks.
- Reduced likelihood of leakage and structural failure.
- Enhanced support for technical and managerial decisions.
- Better coordination between operations and maintenance teams.
- Improved asset reliability and availability.
- Support for systematic integrity planning.

Conclusion

The Storage Tanks Integrity Management Overview course provides a practical and well-structured foundation for understanding how storage tanks can be managed safely and effectively throughout their operational life. The content is designed to balance technical clarity with operational relevance, making it suitable for professionals with moderate experience levels.

By focusing on risk identification, maintenance practices, governance, and continuous improvement, the course supports informed decision-making and controlled asset performance. Participants leave with a clear framework that can be applied to real storage tank systems, contributing to safer operations, improved reliability, and sustained organizational performance over time.

