

Asset Integrity Management System

Course general description:

The asset integrity is the ability of the asset to perform its required function effectively whilst safeguarding life and the environment. For any asset operating under specific conditions, asset integrity is achieved when the risk of a failure occurring which would endanger the safety of personnel, the natural environment or the asset itself is As Low As Reasonably Practicable (ALARP).

Asset integrity nowadays is considered as one important element to improve productivity in oil and gas production facilities (production, refining, and distribution). In the development, asset integrity arise from technical issue (maintenance, inspection, engineering assessment) to a higher level of corporate management policy. This means that asset integrity assurance represent an integrated objectives series that involve asset under many aspects during their all lifecycle and Asset Integrity management system represent the actions that lead to carry out those objectives.

Audience:

This course is designed for:

1. Maintenance and integrity managers
2. Planners
3. Maintenance and inspection engineers
4. Supervisors and qualified senior technicians
5. Planning managers
6. Production managers
7. Supervisors and qualified senior operators.

Course objectives:

At the end of the workshop participants will be able to understand and practice the basics and fundamentals of the following Asset Integrity & Safety Management System foundation:

- Implementation of Asset Integrity Management System
- Asset Integrity Throughout the asset lifecycle
- Positive impact of asset integrity program (Case Study)
- Maintainability Analyses
- Understand Hazard & Risk
- Manage Risk
- Inspection & monitoring strategy
- Equipment Integrity
- Asset Activities Management
- Process Safety

Course duration:

5 days

Course location:

Cairo-Dubai-Istanbul

Course contents:

Day-1

- ✓ Introduction & Overview
- ✓ Asset Integrity Assurance Definition
 - Elements of an Effective Asset Integrity Assurance Process
 - Implementation of Asset Integrity Management System
 - Asset Integrity Assurance Audit
 - Safety Critical Elements identification
 - Asset Integrity assurance in a project (Barriers)
- ✓ Asset Integrity Throughout the asset lifecycle
- ✓ Positive impact of asset integrity program (Case Study)
- ✓ Asset Integrity Audit (Case Study DNV)

Day-2

- ✓ Maintainability Analyses
 - Maintenance Engineering
 - CMMS
 - RCM policy
 - Root Cause Failure analysis (RCA)
 - Inventory Management
- ✓ Effective system for selecting contracts.

Day-3

- ✓ Performance Management
- ✓ Competency & training (CAMS)
- ✓ Management of change (MoC)
- ✓ Safety Critical Elements (SCE)

Day-4

- ✓ Inspection & monitoring strategy
- ✓ Risk Base Inspection (RBI)
- ✓ General Overview on Codes and standards
- ✓ Equipment Integrity (Pipeline & Pressure system)
- ✓ Corrosion Management

Day-5

- ✓ HSE Management System
 - Understand Hazard & Risk
 - Manage Risk (Assessment control & monitoring)
 - Risk Register
- ✓ Process Safety Management System

Methodology:

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

Course code: (TEME015)