

# € TRAINING

Quality Assurance in Maintenance and  
Engineering



20 - 31 October 2024  
Cairo (Egypt)



# Quality Assurance in Maintenance and Engineering

REF: A2118 DATE: 20 - 31 October 2024 Venue: Cairo (Egypt) - Fee: 3520 Euro

## Introduction:

This training program provides participants with a holistic understanding of quality management principles and practices in maintenance and engineering contexts. It empowers them to enhance operational efficiency, reliability, and quality standards within their maintenance and engineering functions.

## Program Objectives:

At the end of this program, participants will be able to:

- Apply quality assurance principles effectively in maintenance and engineering contexts to ensure operational efficiency and reliability.
- Navigate regulatory requirements and standards relevant to quality assurance in maintenance and engineering.
- Identify key stakeholders and their roles in quality assurance processes, fostering collaborative efforts towards quality improvement.
- Utilize various quality assurance tools and methodologies to assess and enhance maintenance and engineering processes.
- Demonstrate a comprehensive understanding of quality assurance concepts and their practical applications in optimizing maintenance and engineering operations.

## Targeted Audience:

- Quality control staff.
- Maintenance engineers.
- Quality manager.
- Safety manager.
- Auditors.

## Program Outlines:

Unit 1:

Fundamentals of Quality Assurance in Maintenance and Engineering:

- Introduction to quality assurance principles and their application in maintenance and engineering.
- Understanding the importance of quality assurance in ensuring operational efficiency and reliability.
- Overview of regulatory requirements and standards relevant to maintenance and engineering quality assurance.
- Identifying key stakeholders and their roles in quality assurance processes.
- Introduction to quality assurance tools and methodologies used in maintenance and engineering.

## Unit 2:

### Maintenance and Engineering Process Optimization:

- Analyzing maintenance and engineering processes to identify areas for improvement.
- Implementing continuous improvement strategies to enhance process efficiency and effectiveness.
- Utilizing Lean and Six Sigma principles in maintenance and engineering operations.
- Incorporating predictive maintenance techniques to minimize downtime and optimize asset performance.
- Monitoring and measuring key performance indicators KPIs to track process optimization efforts.

## Unit 3:

### Quality Control Techniques in Maintenance and Engineering:

- Understanding the principles of quality control and their application in maintenance and engineering.
- Implementing statistical process control SPC methods to monitor and maintain process quality.
- Conducting root cause analysis to identify and address quality issues in maintenance and engineering activities.
- Establishing inspection and testing procedures to ensure product and service quality.
- Developing corrective and preventive action plans to address non-conformances and prevent recurrence.

## Unit 4:

### Risk Management in Maintenance and Engineering:

- Identifying potential risks and hazards associated with maintenance and engineering operations.
- Assessing risk severity and likelihood to prioritize risk mitigation efforts.
- Developing risk management strategies to minimize the impact of potential failures on operations.

- Implementing preventive maintenance programs to mitigate equipment failure risks.
- Establishing contingency plans and emergency response protocols to address unexpected events.

## Unit 5:

### Quality Assurance Audits and Compliance:

- Planning and conducting quality assurance audits in maintenance and engineering.
- Evaluating compliance with regulatory requirements, industry standards, and organizational policies.
- Documenting audit findings and communicating recommendations for improvement.
- Implementing corrective actions and monitoring their effectiveness.
- Continuously improving quality assurance processes based on audit results and feedback.