



Maintenance & Reliability Management

# Best Practices for Cost Effective Maintenance

## Course Introduction

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Maintenance & Reliability Best Practices are critical for every successful individual and company. The first module of this workshop delivers many practical and new Maintenance and Reliability Best Practices concepts and tools. You will discuss these concepts and practice using practical tools in case studies and discussion groups. The second module then helps you decide in a rational way which activities are best done with internal resources and which are best out-sourced. Tools and Techniques are introduced which will help you ensure that outsourcing contracts are comprehensive and avoid the common pitfalls. The costs associated with equipment downtime and reduced production can be significant.

### Contracting types

Learning how to effectively manage all aspects of your industrial facility is a must - so is this three - day seminar. The focus of this course are highlighted on understanding outsourcing methodologies, contracting types, including Service Level Agreements, Risk Based Maintenance to ground maintenance contracts, Dashboards and Real-Time Performance monitoring and Key Performance Indicators to monitor performance and continuous improvement, and performance management: how to evaluate the performance with all parties involved.

## Target Audience

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- Facilities Engineer
- Facilities Engineering Manager
- Facilities Manager
- Facilities Specialist / Coordinator
- Health and Safety Engineer
- Maintenance Group Leader
- Maintenance Helper / Assistant
- Maintenance Manager
- Maintenance Superintendent

- Maintenance Supervisor
- Mechanical Reliability Engineer
- Network Reliability Engineer
- Operations and Maintenance Specialist
- Reliability Engineer

## Learning Objectives

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- Evaluate and justify your maintenance programs using  $\text{Value} = \text{Benefit} - \text{Cost}$
- Apply Life Cycle cost and risk planning to your facility assets
- Target Maintainability and/or Reliability in the development of your facility maintenance plans
- Learn the PLAN, DO, REVIEW Cycle of Continuous improvement
- Understand how to decide Rationally what Maintenance Activities to outsource and what is not
- Learn the features, functions and benefits of lean maintenance contracts
- Understand the different types of maintenance contracts (incl. Service Level Agreements) and when/how to apply them
- Learn how to define service levels and monitor the contractor performance
- Learn how to develop and negotiate a maintenance contract
- Recognize the pitfalls
- Understand how to evaluate the delivered performance of all parties involved
- Learn how to implement Maintenance Contract Management

## Course Outline

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### • 01 DAY ONE

#### Module (01) Cost Management Overview

- 1.1 Definitions
- 1.2 The Total Cost of Maintenance
- 1.3 Best Practice Reliability

- 1.4 Maintenance Process
- 1.5 Elements of Best Practice Asset Management
- 1.6 Auditing Performance
- 1.7 Information Requirements
- 1.8 Maintenance Team Work Skills

## • 02 DAY TWO

### **Module (02) Laying the Groundwork**

- 2.1 Asset Management - Definitions
- 2.2 Inventory Impact and Costs
- 2.3 Determining Best Practice PM Frequency
- 2.4 Selecting Reliability & Maintenance Tactics
- 2.5 Predictive Maintenance & Condition Monitoring
- 2.6 Developing Predictive Maintenance System
- 2.7 Open Discussion Session

### **Module (03) Applying the Value based Process**

- 3.1 Performance Management
- 3.2 Four Important Reliability Functions
- 3.3 Different Sources of Reliability Data
- 3.4 Lessons learned from Other Industrials
- 3.5 Recording Failure Properly
- 3.6 Reliability & Failure Analysis Best Practices
- 3.7 Failure Analysis Best Practice Software

## • 03 DAY THREE

### **Module (04) Applying the Value based Process**

- 4.1 Criticality Assessment Methodologies
- 4.2 Best Practice Equipment Life Cycle management
- 4.3 Life Cycle Reliability assessment Best Practices
- 4.4 Equipment healthcare contracts
- 4.5 Developing best practice Maintenance Programs
- 4.6 Maintenance Program justification techniques
- 4.7 Cost justification Best Practice software
- 4.8 Case Study

### **Module (05) Maintenance Activities Review**

- 5.1 Planning Techniques
- 5.2 Focusing on High Risks

- 5.3 Optimizing Spares
- 5.4 Right type of Maintenance
- 5.5 History Recording
- 5.6 Life Cycle Asset Management

#### • 04 DAY FOUR

##### **Module (06) Outsourcing Considerations**

- 6.1 Business impact of Maintenance
- 6.2 Consideration in Outsourcing Maintenance
- 6.3 Activity on Asset Matrix
- 6.4 Risks Involved

##### **Module (07) Maintenance Contracts**

- 7.1 Maintenance Contract types
- 7.2 Parties Involved
- 7.3 The Tendering Process – modern ways of tendering
- 7.4 Choosing the Right Contractor
- 7.5 Costing the Service
- 7.6 Defining Key Performance Indicators

#### • 05 DAY FIVE

##### **Module (08) Developing the Maintenance Contract**

- 8.1 Vendor Management
- 8.2 The Contracting Cycle
- 8.3 specify the required service levels
- 8.4 Contents of a Maintenance Contract
- 8.5 Interactive Exercise: Review Some Existing Contracts
- 8.6 Implementing Contract Management
- 8.7 Periodic Evaluation & Improvement

##### **Module (09) Grounding & Negotiating the Contract**

- 9.1 Expectations about Availability, Reliability and Costs
- 9.2 The extensive Preventive Maintenance Schedule
- 9.3 The Seven Steps to develop a Risk based Maintenance
- 9.4 Negotiate more effectively lean maintenance contracts
- 9.5 Negotiating the Contract – Negotiation Ploys
- 9.6 Negotiating the Contract – Negotiation Tactics
- 9.7 Interactive Exercise and Role Play of Negotiating

# Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 5, 2025	May 9, 2025	5 days	4250.00 \$	UAE - Dubai
July 14, 2025	July 18, 2025	5 days	5950.00 \$	Switzerland - Zurich
Oct. 26, 2025	Oct. 30, 2025	5 days	4250.00 \$	Qatar - El Doha
Dec. 14, 2025	Dec. 18, 2025	5 days	4250.00 \$	Oman - Muscat