

Training Title

OPTIMIZING EQUIPMENT MAINTENANCE & REPLACEMENT DECISIONS

Training Duration

5 days

Training Date

ME555	Optimizing Equipment Maintenance & Replacement Decisions	5	15-19 Jan 2024	\$5,500	Dubai, UAE
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In any of the 5 star hotels as mentioned below. The exact venue will be informed once finalized.

1. DoubleTree by Hilton Hotel & Residences Dubai – Al Barsha

P.O. Box 72584, Dubai - United Arab Emirates
DoubleTree.com

2. Elite Bybloss Hotel

www.elitebybloshotel.com
P.O. Box 390531 Dubai - United Arab Emirates

3. MILLENNIUM PLAZA DOWNTOWN HOTEL DUBAI

23215 | Sheikh Zayed Rd | Trade Centre | Trade Centre 1 | Dubai, United Arab Emirates
W www.millenniumhotels.com

Training Fees

- \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

Language: English

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COURSE DESCRIPTION

Major world companies from the process and petrochemical industry have developed their maintenance practices based on the optimisation of predictive maintenance management system. This approach works well for both stationary and rotating equipment and includes continuous condition monitoring and the detailed inspection of vital elements of the equipment. The optimisation of the maintenance activities includes the spare parts handling, the selection of the right size and skill of maintenance crew with consideration of potential outsourcing i.e. subcontracting. Based on the collected data on reliability of the equipment in operation, Maintenance department can complete the Fitness for Service analysis based on

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which the decision can be made about 3Rs: Run, Repair or Replace, for the particular component of the equipment. Final decision regarding equipment replacement depends very much on the economic and safety aspect that must be taken into consideration.

OBJECTIVES:

- Identify equipment failures, and the impact on plant reliability
- Understand the cost-effectiveness of Preventive / Predictive Maintenance program
- Apply techniques of optimisation of various maintenance activities
- Define criteria for work-crew size, spare parts and equipment replacement
- Make the important decision on the basis of the cost and benefit analysis
- Incorporate safety objectives to the equipment repair or replacement optimization

WHO SHOULD ATTEND:

- Operation, Technical Production & Service Professionals
- Technical Professionals responsible for maintenance and repair of equipment
- Professionals involved in inspection and reliability
- Technical Professionals dealing with risk assessment and integrity analysis
- Technicians dealing with regulating and metering and other measurements

COURSE OUTLINES

DAY 1

Physical Asset Management & Failure Analysis

- Physical Asset Management
- Maintenance Management: Preventive / Predictive Approach
- Nature and Modes of Equipment Failure
- Failure Modes & Effect Analysis (FMEA)
- Analysis of Component Failure data using the Weibull Distribution
- Censored Data, the 3-Parameter Weibull, and the Kolmogorov-Smirnov Test

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DAY 2

Preventive Maintenance & Spare Parts Replacements

- Reliability and Availability Concept: MTBF & MTTR
- Reliability Improvement through Reduction of Downtime
- Maintenance Performance Quantification
- Preventive Maintenance & Spare Part Handling
- Spare Parts Provisioning: Prediction Models and Techniques
- Management of Change: In-Kind Spare Parts

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DAY 3

Equipment Inspection & Fitness for Service

- Condition Monitoring & Inspection
- Risk Based Inspection (RBI)
- Risk Matrix: Management and Mitigation Measures
- Reliability Improvement through Inspection
- Inspection Scope & Frequency
- Fitness for Service Analysis (FFS)

DAY 4

Economics of Maintenance, Repair & Replacement

- Management of Maintenance Resources
- Effective Use of CMMS
- Maintenance Organization Analysis: Crew size
- Equipment Repair or Replacement Decision
- Economic Aspect of Maintenance Outsourcing: Subcontract
- Economic Aspect of Equipment Replacement

DAY 5

Total Productive Maintenance & Safety

- Capital Investment in Equipment and Maintenance: ROI
- Total Productive Maintenance
- Safety in Maintenance Work
- KPI and OEE: Leading and Lagging Indicators
- Summary and Conclusions

COURSE METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises

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- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions

Case Studies, Group Discussions, Last Day Review, Assessments will be carried out.

MEETING ROOM PICTURES:



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