

Rotating Equipment Optimization with Continuous Reliability Improvement (CRI) Conference





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#### Introduction

Benchmarking studies on oil refineries worldwide have shown that rotating equipment accounts for more than 20% of all maintenance and inspection costs. Furthermore, as rotating equipment is often situated at critical nodes of industrial processes, their failure can lead to significant production downtime and associated costs.

This rotating equipment optimization and continuous reliability improvement CRI program aim to deliver deep insight into optimizing rotating mechanical equipment using predictive and preventive maintenance strategies. Attendees will learn how to incorporate continuous improvement processes to enhance equipment's reliability and efficiency, ensuring a smooth and cost-effective operational workflow.

The Continuous Reliability Improvement CRI process is a crucial facet of equipment optimization within the industrial sector. This rotating equipment optimization and continuous reliability improvement conference will dive into the methodology behind continuous improvement in the workplace, empowering personnel to enhance operational reliability through strategic monitoring and adjustments.

#### **Targeted Groups**

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

### **Conference Objectives**

By the conclusion of this rotating equipment optimization and continuous reliability improvement CRI conference, participants will be able to:

- Utilize proven methodologies and templates introduced during the sessions.
- Concentrate on crucial aspects of equipment improvement to ensure reliability.
- Recognize failure modes and their impact on the performance of industrial rotating equipment.
- Make informed maintenance decisions to support strategic equipment management.
- Minimize the negative influence of plant downtime.
- Realize the full potential of their teams by improving machine efficiency.

#### **Targeted Competencies**

Upon the end of this rotating equipment optimization and continuous reliability improvement CRI conference, the target audiences will be able to:

- Main Types of Equipment Failure Mechanisms.
- Maintenance Methodologies and Economic Aspects.



- Spare Parts Handling and Storage Modeling.
- Risk Assessment and Management.
- Equipment Inspection and Fitness for Service Analysis.

#### **Conference Agenda:**

### Day 1: Understanding The Link Between Reliability and Competitive Advantage

- Definition of Reliability.
- Probability of failure.
- Reliability metrics.
- Strategic Importance of Reliability.
- Assessing current performance.
- Making the right strategic choices.

## Day 2: Using Reliability Modeling to Establish Inherent Reliability

- · Basic modelling building blocks.
- · Deterministic models.
- · Probabilistic models.
- · Markov chains.
- Monte Carlo models.

### Day 3: Understanding The Nature of Failures to Make The Best Response

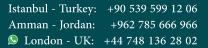
- · Origins of failure.
- Failure types.
- Six common patterns.
- Analyzing failure patterns.
- · Weibull analysis.
- Maintenance tasks.

### Day 4: Optimizing Your Failure Management to Ensure That Maintenance is Cost-Effective

- Risk assessment and criticality.
- Equipment functions.
- · Functional failures.
- Failure modes and effects analysis FMEA.
- Failure consequences.
- Maintenance task selection.
- Producing a practical maintenance plan.

### **Day 5: The Continuous Reliability Improvement CRI Process**

• Assessing the improvement potential versus the costs.





- Obtaining senior management support.
- Establishing the project framework.
- Technical aspects.
- Human considerations.
- Likely results.