€TRAINING

Rotating Equipment Optimization with Continuous Reliability Improvement (CRI)

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Introduction:

Benchmarking studies on various oil refineries around the world have shown that rotating equipment accounts for more than 20% of all maintenance and inspection costs. Also, rotating equipment is often at key nodes of the process and is frequently critical to production. Therefore failure would lead to unacceptable downtime costs.

This program aims to provide delegates with a comprehensive understanding of how to use a combined predictive and preventive maintenance approach coupled with proper failure monitoring to achieve maximum reliability and performance from rotating equipment.

Course Objectives:

At the end of this course the participants will be able to:

- Apply the proven methodologies and templates which are introduced
- Focus on key areas of reliability
- Understand the nature of failure and how this affects the performance of rotating equipment
- Make the right maintenance choices for strategic equipment
- Reduce the impact of plant downtime
- Unlock the true potential of all of their people

Targeted Audience:

- The 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:

Unit 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

Unit 2: Using Reliability Modeling to Establish Inherent Reliability:

- Basic modeling building blocks
- Deterministic models
- Probabilistic models

- Markov chains
- Monte Carlo models

Unit 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

Unit 4: Optimising Your Failure Management to Ensure That Maintenance is Cost-Effective:

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

Unit 5: Setting Up a Continuous Reliability Improvement Process to Improve Performance:

- Assessing the improvement potential versus the costs
- Obtaining senior management support
- Establishing the project framework
- Technical aspects
- Human considerations
- Likely results