Modern Maintenance Technologies Training

Description

Introduction

Modern Maintenance Technologies provides all the delegates great opportunities to optimise the performance of their systems and equipment to achieve maximum return on investment (ROI). By reducing costs and downtime, while achieving high levels of safety and quality.

This course provides an overview of a number of Modern Maintenance Technologies associated with equipment, systems, people and management. It describes both the background to each technology, and its practical application to achieve the best bottom-line results.

This course introduces participants to the skills and knowledge areas of essential maintenance technologies and methodologies of today, such as:

- Asset Management : beyond maintenance management
- Cost/benefit thinking
- Understanding risk and an introduction to a Risk Based Maintenance approach
- Decision support tools to make maintenance more effective
- Root Cause Analysis (RCA)
- Understanding audits, maintenance assessments and benchmarking as a means to improve your maintenance management process.

Objectives

The delegates will learn how:

- To apply the appropriate Modern Maintenance Technologies
- Each of these technologies contributes to maintenance efficiency
- These technologies can interact with and support each other
- To achieve the best results in practicing these technologies
- To develop an action plan to utilise these technologies in their own areas of responsibility, fitting them into the overall maintenance strategy, and measuring benefits

The Contents

Day 1 – Introduction & Overview: challenging the traditional approaches to maintenance

- Introduction to program
- Introduction delegates
- Asset Management
- The business impact of maintenance
- Cost/benefit thinking: spending the right amount of maintenance
- Applying basic optimisation tools to support cost/benefit decisions
- Introduction to risk
- Video about maintenance & risk and interactive discussion

Day 2 – Risk Based Maintenance (RBM)

- Deterioration: the way assets could fail
- Representation of risk
- Not all failures are risky and must be prevented – applying risk to failures
- The seven steps of Risk Based Maintenance (RBM) – the methodology
- Failure Mode Effect & Criticality Analysis (FMECA)
- Failure behaviour
- Choosing the right maintenance task
- Interactive exercise

Day 3 – Root Cause Analysis (RCA)

- Multiple realities
- Interactive and exercise about subjective views
- Effective problem solving
- Preventing problems by finding the root causes of these problems
- Defining the problem as a starting point
- Cause and effect relations
- RCA methodologies – some examples and how to apply it in practice
- Case study

Day 4 – Process Audits, Maintenance Assessments & Benchmarking

- Where are we now – introduction to process audits, benchmarking & assessments
- Process audit – basic theory
- Interactive exercise – auditing in practice

- Maintenance assessment – basic theory
- Interactive exercise – execute a maintenance assessment of the work planning & control process
- Benchmarking – basic theory
- Some examples of benchmark studies
- Interactive exercise – how to interpret benchmark results

Day 5 – Performance Management & Decision support tools

- Defining performance
- Applying specific performance indicators and process parameters to measure the performance of assets, activities and processes
- Interactive exercise
- Performance management: the behaviour of people
- ABC-model of influencing the behaviour of people to gain better results
- Applying sophisticated decision support tools to optimise maintenance performance
- Case study
- Wrap up