



# THE CHEMICAL ENGINEERING MAJOR

## Troubleshooting Process Operation

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# Troubleshooting Process Operation

## Introduction:

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This seminar will enable delegates to remain abreast of the latest researched trends, techniques and strategies to improve the condition and performance of their operational process. This hands-on intervention will equip you with the necessary basic knowledge and skills to optimize the function, daily running, and maintenance of the five main aspects of the operation, such as demographics, infrastructure, systems and plant.

Delegates will learn and review the core competencies required for successful operation and implementation of an effective operations process against the background of the current global economic downturn. They will complete several in-seminar assignments, which will enhance their problem solving skills and which will serve as an action plan for improvement. Setting the correct priorities and DOING THE RIGHT THING, makes all the difference to your performance.

## This Seminar will include:

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- Terminologies, Tools and Techniques for RCFA
- A modern holistic approach to understanding the operational process
- Process Maturity Indexing; Planning; and Protocols

- Exact performance measurement and performance management modeling
- More than one hundred “Human Factors” as a Source of Error

## **Training Methodology:**

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The training methodology is inter-active with group exercises and is suitable for all employees involved in maintenance and operations management. The pace and level of the seminar is customized to the understanding of the delegates. Ongoing back-up and support is available after the seminar on request to the supplier, and the seminar is also available for in-house presentation as well as for “Competency Transfer” via a site license.

## **Personal Impact:**

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The personal impact on the delegates will include:

- Clarity of vision, understanding of consequences due to specific actions taken and the application of principles in the operations / maintenance environment
- A new sense of certainty and confidence will develop within the delegates that will lead to empowerment and a results driven focus

## **Organizational Impact:**

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- An immediate and drastic positive impact on the performance of the maintenance organization of the delegate will become evident within days after attendance of the seminar
- Informed decision-making, focused action, and a vastly improved understanding of the operational process will all contribute to this improvement

## **Who Should Attend:**

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- Engineering and Technical Managers and Supervisors from any industry
- Maintenance Planners and Coordinators
- Operations and Manufacturing Managers and Supervisors
- Foremen and Team leaders
- Plant Engineers and Process System Managers
- Section Engineers and Planners

## **Objectives:**

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- Participants attending the seminar will:
- Gain a broad understanding and appreciation of the core functional aspects of how an effective operational process should operate
- Review the six standard maintenance improvement tactics and their selection technique to ensure reliable process plant & equipment

- Learn how to develop a comprehensive operational process resource and support system analysis
- Understand the principles of an operational audit, develop your own process standard
- Gain insight and understanding into the unique leadership and motivation principles required for technical process operation and management

## **Seminar Outline:**

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### **DAY 1**

#### **Review of Basic Modern Operations Practice**

- Review of Modern Operational Practice in the light of the Global Economic Recession
- Integration of Maintenance and Production to establish a World Class Operations Department
- Generic Performance Measurement Model using a 6 point Scale
- Combining the parameters of Speed; Quality; and Cost; in maintenance performance measurement
- The 10 point Planning Standard and the role of the Planning Department
- Variability Analysis
- Developing effective Strategies for the Operational Process in order to achieve organizational excellence and continuous improvement

### **DAY 2**

#### **Standard Maintenance Improvement Initiatives**

- Selecting the “Correct” maintenance tactic mix
- Reliability Centered Maintenance (RCM)
- Total Productive Maintenance (TPM)

- Run To Failure (RTF)
- Condition Based Maintenance (CBM)
- Time Based Maintenance (TBM)
- Skills Level Upgrade (SLU)
- Design Out Maintenance (DOM)

### DAY 3

#### Operational Resource Analysis

- A “Blueprint” for effective operational practice
- Resource and Support System analysis with “Gap Analysis
- Leadership Development and Motivation of Operations employees
- The PAS 55 Maintenance Process Standard
- Principles of Information Management
- Training, Awareness and Competence

### DAY 4

#### Problem Solving in the Operations Environment

- Risk identification, assessment and control
- Theory of Inventive Problem Solving
- Problem Solving Techniques and application
- Exercises and Facilitation

### DAY 5

#### Scenario Analysis and Action Plan Development

- Relationships Scenario Analysis
- Assessment Assignment
- Scoring of your Operational Process
- Understanding the complexity - Putting it all together