

Managing Plant Maintenance

INTRODUCTION

The maintenance of industrial plants are no longer be treated as an 'technical problems'. The competitive industrial environment in which plants are operated needs a special and clever approach to integrates the operational and processing objectives of the industry and the life-cycle objectives of the industrial plants. The effectiveness of maintenance management must be developed significantly in many industrial organisations by using a powerful computerised management systems. Several research studies show that a lack of industrial plant management skills at all types of the maintenance and processes work-power are the main reasons behind most of the industrial problems.

AIMS & OBJECTIVES

In this short training course, the candidate will gain and learn the following;

- Planning best practices and key elements for taking action on them
- How world-class organizations solve common planning problems, Evaluate your practices compared to those of others
- Use of your information and communication tools
- Improve productivity through use of better, more timely information
- Create in work management and use it for planning and scheduling resources
- Consistency and reliability of asset information
- Productive turnarounds
- Preventive and predictive maintenance strategies

PRESENTER

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Dr Hussain Ahmed is a Senior Training Consultant & Course Team Leader with Halton College-UK. Hussain got a BSc and MSc in Engineering from the University of Strathclyde-UK. Heriot Watt University in Edinburgh awarded Hussain a Ph.D in Oil & Gas Production. Hussain has a PGCE in Teaching and Training from Manchester University. Hussain holds a Training certificate from City & Guilds London Institute. He has a BTEC certificate in tutoring distance & open learning courses. With university of Liverpool, Hussain studied for a PG Diploma in Education Management. Hussain has more than 10 years of industrial experience in Chemical and Oil & Gas industry, he also has experience for more than 15 years in teaching, training and learning consultancy. Hussain has authored several technical papers and scientific articles.

PROGRAM

DAY ONE

Defining the Maintenance Level

- Maintenance by Plan vs. Maintenance by Default
- Equipment Reliability and Availability Models
- Building a Maintenance Management Plan
- Setting and Achieving Goals

Planning and Estimating

- Traditional Estimating Methods
- Problems with "Engineered" Methods
- Employing the Structure of Construction Estimating Methods
- The Planning "Thought Process" - A Common Sense Approach
- Planning Exercises & Economics
- Using Performance Based Estimates
- Improving the Accuracy of Estimates
- Building Generic Plans
- Solving Material Problems & Dealing With Delays

DAY TWO

Preventive and Predictive Maintenance

- Debunking the "Classic Curve"
- Mandatory and Discretionary PM
- Prioritizing Candidates for PM
- Understanding Why PM Fails
- Building Credible PM Procedures
- Optimizing PM Frequencies & PM Form Development
- Sources of Generic PM Procedures
- Audits for Procedures and Programs
- Converting Preventive to Predictive Maintenance (PDM)
- The Spectrum and Future of PDM
- Engineering Limits that Make Sense

DAY THREE

The Scheduling Process

- Prioritizing Maintenance Work - Understanding the Process
- Dealing with Emergencies & Maintenance Calendars
- The "Scheduling Game"
- Scheduling with a Plotted Backlog
- The Allocation Scheduling Method
- Priority Numbering Systems
- Weekly and Daily Schedules

- Limitations of a CMMS Scheduling Package
- Controlling the Backlog

Maintenance Support Systems

- Setting up a maintenance management system to maximise benefits
- Parts control systems & Modelling systems
- Condition monitoring systems & Links to plant control systems

DAY FOUR

Critical Path Methods for Maintenance

- Definitions and Conventions
- Diagramming Methods
- Identifying the Precedent Logic
- Determining the Critical Path
- The Importance of Float (Slack) & A Project Example
- Load Leveling for Overallocated Resources
- Balancing Downtime and Shutdown Costs
- Using Project Software - A Review of Popular Programs
- Turnarounds, Shutdowns and Outages

DAY FIVE

Indices, Reports and Graphics

- What an Index Doesn't Show
- Streamlining Data Collection
- Performance Indices that Count
- Maintenance Management Reports
- The "Balance Sheet" & Overview and Analyses
- Performance Indices and Graphics
- Graphical Presentation Tips

Management Information

- Top ten items
- Structured cost reporting & Plant history file
- Identifying performance trends
- Value for money analysis
- Continuous improvement