

Outline of Training Workshops/Seminars

The following is a list of 1-day workshops on offer from Effective Maintenance Ltd. to Operations and Maintenance Supervisors, Managers Reliability Engineers, Planners and Schedulers.

A) Workshops (mostly hands-on)

1. A structured approach to improving Operational Reliability

- Get the basics right, viz., keeping machines clean, dry and lubricated
- Importance of clearly agreed common goals
- Manage the Operating Philosophy correctly.
- Identify the correct maintenance strategies
- Training, Competence and Motivation.
- Performance Indicators to improve performance!
- A Computerized Maintenance Management System that helps manage the maintenance process
- Infrastructure; enablers of high quality and productivity
- Managing change successfully.
- Execution quality and compliance
- Encouraging a culture that refuses to accept failure.
- Measure, revise steps that are outdated.

2. Relating maintenance performance to Business results.

- Safety, Health, Environment, Profitability, Asset Life, Reputation
- Operational Reliability and Business Performance
- Life Cycle earnings; maximizing Net Present Value
- Working towards a Reliability Culture
- Some tools and where to apply them
- Implementation issues and managing change
- Importance of performance monitoring
- Actionable First Steps

3. Managing Process Plant Turnarounds (or Shutdowns)

- A bag full of Risks!
- Justifying a Turnaround; can we avoid/delay it?
- Planning a Turnaround; need for integration
- Scope management, freezing and allowable changes
- Contracting Strategies
- Preparing a Turnaround
- Risks during execution and their management
- Communication and conventions
- Start-up, early operation and steady state operation
- Turnaround Reports and lessons for future

4. Maintenance Performance Measurement

- Maintenance aims and defining success
- Mapping the maintenance process
- Drivers of maintenance performance; reliability, productivity and compliance
- Backlog and why it matters
- Priority definitions and measurements
- Uniform definitions of key indicators and broad acceptance
- Reporting and the use of CMMS to generate KPIs
- Benchmarking performance
- Action Plans

5. Planning, Scheduling and Optimizing Work

- Just a fashion or critical to business success?
- Doers do but planners don't?
- Workflow
- Organisational styles (centralised, decentralised)
- Priority profiles
- Backlog
- Is more better? Setting realistic targets to shoot for
- Computers or friendly paper

B) Seminars (some theory and explanation, rest hands-on)

6. Introducing Reliability Centred Maintenance in your Company

- Relating RCM to Business Performance
- Understanding the RCM process
- When should we do RCM?
- Justifying RCM to stakeholders
- Why Operations and Operators matter
- Measuring RCM success

7. Introducing Root Cause Analysis in your Company

- Failures and Business Performance
- Why should we aim for a reliability culture?
- Problem identification and definition
- Some simple tools borrowed from Quality Gurus
- Human Reliability and Errors
- Data Quality
- Understanding the RCA process
- Application and justification of RCA
- Measuring RCA success

8. Reliability Engineering for those who don't remember their maths

- Games of chance and probability concepts
- Histograms
- Probability Density curves; common terms in Reliability Engineering
- Failure Patterns; the Airline Industry experience
- Exponential and Weibull Distributions
- When should we intervene to do maintenance?
- Common terms – MTTF, MTBF, MTTR, Availability, Maintainability
- A logical approach to deciding maintenance strategy

9. Risk, Reliability and Maintenance

- Business performance and Risk Management
- Understanding Qualitative and Quantitative Risk
- Elements of Reliability Engineering
- Human Reliability and Errors
- Relating Risk Management and Reliability
- How Maintenance and Reliability are linked
- Risk reduction tools and where to use them

10. Introduction to Reliability Engineering Tools

- Histograms, Probability Density Curves, Definitions
- Reliability Block Diagrams
- Fault Tree and Event Tree Analysis
- Mathematical Modelling
- Failure Mode and Effect Analysis
- Failure Mode, Effect and Criticality Analysis
- Applicability and use of these tools

11. Setting up an Effective Reliability Operation

- Need not be a “box” on the organisation chart
- Need not be full time
- Clear aims and ambitions
- Some target areas to think about
- Clear organisation and structure
- How to start and how to get there
- Importance of publicity and management interest