



ME171:

Maintenance Auditing, Benchmarking & Performance Improvement Towards World Class: Certified Maintenance Auditor

Training Description:

Recent competitive trends have been pushing companies to reconsider the impact and importance of increasing equipment availability, utilization and resource utilization, and increasing quality and responsiveness of maintenance services in achieving world class status to meet world competition.

It has been estimated that of the over 600 billion dollars per year spent on maintenance, more than one third 200 billion dollars is wasted! Wasted due to poor management of resources, poor measurement and control of labor, material, capital! Not only that: Maintenance costs are higher than managers realize, because although they think the costs of doing maintenance are high, they don't often realize the costs of not doing maintenance right are even higher. Perhaps as much as 15 to 40 percent of total product cost (due to the 'hidden, costs such as breakdowns, lost production, lost time, late delivery, disorder, poor quality, high rework)! Think about it, most managers think of maintenance as a cost, a necessary evil. Costs are something to be minimized, even eliminated, if possible. But everyone knows we can't eliminate maintenance. The plant would come to a screeching halt. No, we must optimize the maintenance function, not minimize it. But to optimize maintenance means we must develop more meaningful, contribution-based measurements.

This intensive training course will show the participants how to initiate and sustain a process of maintenance performance improvement; a process in which maintenance is recognized as critical to the overall production strategy by which their plant provides the product to the customer at a quality they want and a price they are willing to pay.

This course is devoted to help understand how to improve performance through more effective measurement systems such as Auditing and Benchmarking. Here's a road map to get the participants from where they are to where they need to be! Here are some practical guidelines, tools, and techniques that will enable maintenance and production managers to develop consistent, useful, and relevant measures of performance as they strive for 'world class' status.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Get certified as a "Certified Maintenance Auditor"
- ✓ Apply and gain an in-depth knowledge and skills in maintenance auditing, benchmarking, and performance improvement towards world-class status
- ✓ Discuss the importance of measures such as auditing in achieving organizational goals
- ✓ Select appropriate measures (including auditing) that position the maintenance function as a value-added contributor to the company, plant, or organizational mission
- ✓ Carryout auditing program to the business model for better overall organizational performance and selected measures such as auditing to the "critical business issues" and the "key results areas" that drive organizational performance
- ✓ Interpret conceptual 'model' upon which to build a successful measures implementation program for any company, plant or organization
- ✓ Recognize the guidelines and employ the proper developing and implementing of an effective measures program
- ✓ Discuss the "highest and best" use of measures in any context and identify what constitutes good measures and where to apply measures

- ✓ Recognize the 7 key measures of organizational performance and how to relate them to maintenance
- ✓ Discuss the primary categories of maintenance performance measures (including auditing) and select appropriate measures to be used
- ✓ Audit several complex activities within maintenance function and benchmark the internal audit approach and supporting tools and techniques
- ✓ Create a foundation for increasing the effectiveness of audit strategies and delivering value-added results
- ✓ Apply data cycle to measure collection, presentation and analysis and benchmark the plant against world-class companies
- ✓ Employ the required steps toward world-class maintenance and implement an improvement program that will put the maintenance department within the world-class status

Training Designed for:

This course is intended for Maintenance Managers, Superintendents, Engineers and Supervisors who realize the power of performance measurement to motivate, coordinate, and achieve the overall goals and objectives of their company, plant, or department. Line or staff maintenance or production, mid-level or executive, every attendee will benefit from this imminently practical workshop approach to establishing meaningful measures of maintenance performance.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ Why We Measure
- ❖ The Maintenance Contribution – Serving the Business Need
 - Traditional Measures of Maintenance
 - Goals, Means, and Consequences Concept
 - Serving the Business Need
- ❖ The Systems Perspective
 - Introduction to Organizational Systems—Applying Measures
 - 7 Key Measures of Organizational Performance
 - Measures Principles and Guidelines
- ❖ Introduction to Key Maintenance Practices and Measures
 - Key Maintenance Practices and Measures
 - Measurement Ratios

- Surveys and Audits
- ❖ **Introduction to Value-Added Auditing**
 - Audits as Part of the ISO Implementation Process
 - Beyond Compliance Auditing
 - Creating a Win-Win Environment
- Roles and Responsibilities
- Myths and Misunderstandings about Auditing
- ❖ **Managing the Audit**
 - Audit Schedules, Notices, and Programs
 - Audit Teams
 - Consolidating Results for Management Review
 - Standard Report Formats

DAY TWO:

- ❖ **The Auditor's Mission**
- ❖ **The Auditor's Role**
 - Prepare - ISO 9001
 - Conduct the Interviews - the Seven Friends
 - Present the Findings - a True and Fair View
 - Review Corrective Action Plans
 - Follow-Up and Closure
- ❖ **Auditing in High-Technology Environments**
- ❖ **World Class Concepts**
 - Definitions
 - Attributes of World Class Maintenance Organizations
- ❖ **Benchmarking**
 - AT Kearney 'BEST of the BEST' STUDY
 - How Does Your Organization Measure Up? Reviewing Client Benchmark Data; Evaluating Client Maintenance Practices
 - What Keeps us from Doing Better?
 - (Exercise—Roadblocks and Deterrents to Good Maintenance)

DAY THREE:

- ❖ **The Maintenance Contribution**
 - Traditional Views of Maintenance
 - Optimizing the Maintenance Contribution
- ❖ **Three Steps to 'WORLD CLASS' Maintenance**
 - Overview Getting Your Act Together
 - Moving Beyond the Boundaries
 - Fixing the Process, Not Just the Problems
- ❖ **Applying Measures to Key Resource Categories**
 - Labor Utilization
 - Materials Management
 - Equipment Utilization

❖ **The Data Cycle**

- Data-Information-Analysis-Action-Evaluation
- Creating a "Matrix" of Measures

DAY FOUR:

❖ **Implementation**

- Next Steps
- Change Management
- Developing an Implementation Model

❖ **STEP 1-Getting Your Act Together**

- Managing Resources Productively

❖ **STEP 2-Getting Beyond the Boundaries**

- Consensus Building on the Role of Maintenance in Supporting the Production/Operating Units: How do we Make Maintenance a Strategic Element in this Plant? Exploring the Idea of the Philosophy of Maintenance; Shared Responsibilities between Maintenance and Production; Establishing Meaningful Measures of Performance
- Critical Business Issues
- Tying Measures to Strategy Initiatives
- Using a Matrix of Measures
- Using a Balanced Scorecard Approach

❖ **Practical Sessions**

- This hands-on, highly-interactive training includes simulators, real-life case studies and exercises

DAY FIVE:

❖ **STEP 3—Fixing the Process, not just the Problems**

- Major Improvement Concepts I (TPM): Total Productive Maintenance - The 6 Major Losses; Chronic vs. Sporadic; Function Loss vs. Function Reduction; The Concept of 'Optimal Conditions'; Extended Job Life Improvement Concept; The Concept of OEE (Overall Equipment Effectiveness; Strong Equipment Improvement Focus); Equipment Improvement Teams (EITs)
- Major Improvement Concepts II (RCM): Reliability Centered Maintenance - The Growing Expectation of Maintenance; The Changing Views on Equipment Failure; RCM: The 7 Basic Questions; Applying the RCM Process
- Major Improvement Concepts III: PM Optimization - Abbreviated" forms of RCM; PM Optimization

❖ **WRAP-UP; NEXT STEPS**

- Open Items
- Change Issues
- Implementation Issues
- Implementation Model
- Next Steps...What Do We Focus on Next?
- Consensus-Building on the Roadblocks and Deterrents to Good Maintenance

❖ **Course Conclusion**

❖ **POST-ASSESSMENT and EVALUATION**

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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