MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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RCM BASED CRITICAL EQUIPMENT MAINTENANCE OPTIMIZATION

""Maximizing Equipment Reliability Using Risk-Based Maintenance Strategies""

Schedule

Date	Venue	Fees (Face-to-Face)
04 – 05 Mar 2026	Doha, Qatar	USD 1995 per delegate
15 – 16 Apr 2026	Riyadh - KSA	USD 1995 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Reliability-Centered Maintenance (RCM) is a structured approach to optimizing maintenance strategies based on risk, criticality, and failure consequences. It enables organizations to focus resources on the most important equipment, reduce maintenance costs, and improve operational performance.

This 2-day practical training provides maintenance, reliability, and operations professionals with a solid foundation in RCM methodology. The course emphasizes the application of RCM to critical equipment, using proven tools to evaluate failure modes, identify preventive tasks, and enhance asset reliability.

Objectives

By the end of this course, participants will be able to:

- Understand the core principles and logic of RCM
- Identify critical equipment based on risk and impact
- Apply RCM methodology to develop optimized maintenance strategies
- Perform failure mode and effects analysis (FMEA)
- Select appropriate maintenance tactics: condition-based, time-based, or redesign
- Reduce unplanned downtime and maintenance costs

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Why Attend

- Learn how to focus limited resources on the most critical assets
- Enhance maintenance effectiveness through failure analysis
- Apply risk-based logic to avoid over- or under-maintaining equipment
- Gain practical tools to improve asset reliability and performance
- Support digital maintenance and predictive technologies with a solid RCM foundation

Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Asset and maintenance managers
- Plant engineers and operations supervisors
- Production and operations managers
- Anyone responsible for asset performance or maintenance strategy

Individual Benefits

Key competencies that will be developed include:

- RCM methodology and decision logic
- Criticality analysis and failure mode evaluation
- Optimizing maintenance tactics for reliability and cost
- Practical application of FMEA for maintenance planning
- Developing actionable, risk-based maintenance programs

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved asset reliability and reduced equipment failures
- More efficient use of maintenance budgets and resources
- Stronger alignment between maintenance strategy and business risk
- Structured decision-making for asset care and investment
- Enhanced support for safety, compliance, and production continuity

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Introduction to RCM principles and international best practices
- Case Studies – Real-life RCM applications on critical systems
- Workshops – Hands-on exercises in equipment criticality ranking, FMEA, and task selection
- Peer Exchange – Group discussion on failure modes and reliability challenges
- Tools – Templates for criticality analysis, FMEA, and maintenance optimization

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Foundations of RCM and Criticality Analysis

- Module 1: Introduction to RCM and Asset Management (07:30 – 09:30) • Overview of RCM and its alignment with ISO 55000 • The role of RCM in modern maintenance strategies • Types of maintenance and when to apply each
- Module 2: Identifying and Ranking Critical Equipment (09:45 – 11:15) • Establishing criteria for asset criticality • Quantitative vs. qualitative ranking methods • Building a criticality matrix
- Module 3: RCM Decision Logic and Maintenance Strategy Development (11:30 – 01:00) • RCM decision tree and task logic • Linking failure modes to appropriate tactics • Redesign, failure finding, or no scheduled maintenance
- Module 4: Criticality Workshop (02:00 – 03:30) • Hands-on activity: criticality ranking for selected equipment

Day 2: Failure Mode Analysis and Strategy Implementation

- Module 1: Failure Modes and Effects Analysis (FMEA) (07:30 – 09:30) • Function and functional failure identification • Causes, effects, and detection of failure modes • Using RPN or criticality scoring for prioritization
- Module 2: Selecting and Documenting Maintenance Tasks (09:45 – 11:15) • Task types: preventive, predictive, corrective, redesign • Task documentation formats and maintenance plans • Creating effective job instructions
- Module 3: Implementing and Reviewing RCM Strategies (11:30 – 01:00) • Integrating RCM findings into CMMS or EAM systems • Review and update cycles for RCM plans • Measuring success with KPIs
- Module 4: Course Wrap-Up and Final Action Plans (02:00 – 03:30) • Group exercise: RCM plan for a selected asset • Action planning and next steps

Certification

Participants will receive a Certificate of Completion in RCM Based Critical Equipment Maintenance Optimization, validating their ability to apply RCM principles to improve equipment reliability, safety, and cost-efficiency in maintenance operations.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**