Organized by
METRIUS

Collaboration with
WORLD CLASS MAINTENANCE

Our instructor: Ricky Smith CMRP

Live Interactive

MASTERCLASS
Maintenance & Reliability Best Practices

with SMRP BOK for CMRP Exam

24-28 January | Live Online Classes

Need information? Rsmith@worldclassmaintenance.org

Ricky Smith CMRP

Connect with me on LinkedIn to Chat about this workshop at rsmith@worldclassmaintenance.org or https://www.linkedin.com/in/rickysmithcmrp/

Why attend training with us?

All our training is facilitated by some of the world's top minds in their respective fields worldwide.

Industry Leading Course Content

Courses are designed by the trainers delivering them and updated as better practices or methods appear. Guaranteeing an up to date best of the breed curriculum.

Access to Recorded Training

6 Months unlimited access to recorded training for maximizing your learning outcome of the program

Unparalleled Support

Not just until the training, we will support you even beyond that for any additional support you might need in your journey of enhancing your skills to becoming a world-class Maintenance & Reliability expert.

Overview
of the course

The workshop course is a 32 hour long instruction course, spread out over either 5 days, during a single week, or 10 weekends, if the weekend option is chosen.

The course gives attendees an overview of the currently best practices of Maintenance and Reliability, from the point of view of managing all the processes involved.

The course covers topics such as Asset Management, as defined by ISO 55000, the curriculum of the European Federation of National Maintenance Societies for certified Maintenance Experts in Maintenance Management, and the fundamental library of knowledge of the Society of Maintenance and Reliability Practitioners.

Topics covered range from initial capital project planning, through procurement, sourcing, materials management, operations and maintenance, as well as scrapping.

The workshop emphasizes Work Management, Preventive and Predictive Maintenance, setting up the overall organization, and the metrics to support world class reliability and maintenance practices.

The course is built on real world knowledge from improving operations in industry in over 40 countries. It is one step forward in creating leaders in the Maintenance, Reliability and Asset management sector who are recognized all over the world.

Ricky Smith

Ricky Smith, CMRP, CMRT, CRL

Ricky Smith is a well-known Maintenance and Reliability book author, consultant, and best practices educator worldwide. Authoring such books as "Rules of Thumb for Maintenance and Reliability Engineers", "Industrial Machinery Repair, "Lean Maintenance", "Failure Reporting Made Simple" and many more.

Ricky has over 30 years' experience working as a Maintenance and Reliability Professional for companies/organizations such as US Army, Exxon Company USA, Alcoa Mt Holly, Kendall Company, and Life Cycle Engineering. In addition, Ricky worked as a Maintenance Consultant/Educator with hundreds of companies in over 30 countries world-wide.

Ricky is a Certified Maintenance and Reliability Professional (CMRP), a Certified Maintenance and Reliability Technician (CMRT) and a Certified Reliability Leader (CRL). Graduated from the University of Georgia and Trident Technical College. Ricky worked for one of three plants in the world every certified as achieving "World Class Maintenance" and is commonly making the statement, World Class Production thru World Class Maintenance (Alcoa, Mt Holly)

Some of the clients Ricky has helped with:

- ArcelorMittal Steel
- Gallatin Steel
- Georgia-Pacific Corp
- Perdue Farms
- Fontana
- US Department of State

- US Army
- Saudi Aramco
- Oman Petroleum
- Gold Corp (Canada)
- Charleston Public Works
- Reliance (India)

- Life Cycle Engineering (globally)
- Irving Oil
- New-Indy Paper

Skills you will master in this world-class Maintenance & Reliability Training

Asset Management, Standards, Policies and Stakeholders
Applying proven, current methods and new data-driven analytical technologies to support optimum manufacturing process

01

02

Key Performance Indicators, Business Goals and Reliability Goals
Covering how to translate business goals into maintenance and reliability goals that support an organization's business results

Leadership, Organization, and Skills
Structuring groups and organizations to allow for an effective operational culture. Leadership principles, change management, and skills development

03

04

Equipment Reliability
Assessing capabilities of equipment and processes used to select and apply the most appropriate maintenance practices to ensure a safe and cost-e¬ffective delivery

Manufacturing Process Reliability
Evaluating process improvement tools and applying Reliability and Best Practices to Manufacturing Processes

05

06

Work Management
Focusing on the skills used to get maintenance and reliability work done, including planning and scheduling, and quality assurance

Materials Management
Procurement, supply chain, logistics and warehousing practices that support best practices for reliability

07

08

IoT, Industry 4.0 and Computer Systems
Computerized Maintenance Management Systems, Interactions with ERP systems and DCS systems, Asset Health Databases, Considerations for moves to Industry 4.0

Capital Projects Excellence
Focuses on the special case of Turnaround Management within the overall Work Management processes

09

For individuals that are new to the world of Asset Management the workshop provides overview of the whole spectrum of Manufacturing Reliability and Asset Management.

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Learning Objectives

Improve your understanding of the best practices of Maintenance and Reliability

- Learn how to bring together various tools and International standards for Asset Management to support your journey.
- Identify and define opportunities for implementing best practices at your own workplace.
- Learn and understand the relations between the body of knowledge of the SMRP, the Institute of Asset Management, ISO 55000, and other organizations.
- Identify and define opportunities for implementing best practices at your own workplace.
- Develop a method to apply the daily pillars into your daily work life.

Who Should Attend

The course is designed specifically for individuals participating in or aspiring to the following

- Production and Reliability Managers and Engineers & leaders
- Mechanical, Electrical, Production or Project Engineers
- Construction/Contractor Managers and Supervisors
- Maintenance Managers, Supervisors, Planners and Schedulers
- Materials Management Managers/Supervisors
- CMMS Administrator or Key Users
- Maintenance Engineers (Functional and Reliability)
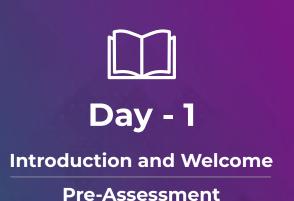
Course Format

This course is an active exchange between attendees and the instructor, using actual examples and exercises that are directly applicable to the body of knowledge

- Approximately 45% of time is spent on the core instructional presentation.
- Approximately 55% of the time is spent on exercises, discussions and direct application examples.

The instructor and participants have an ongoing dialogue to ensure that concepts and methods taught are retained and can be put into use by the participants.

Pre and Post Course Assessments

Each participant will complete a pre-course assessment to gauge their current levels of knowledge and experience. At the conclusion of the course, participants will then complete a post-course assessment to ensure the material was presented effectively.

Day - 1

Introduction and Welcome

Pre-Assessment

MODULE-1

Asset Management, Standards, Policies and Stakeholders

- Standards, Information Guides, and Benchmarking
- Asset Management Policies
- Stakeholders

MODULE-2

Key Performance Indicators, Business Goals and Reliability Goals

- Key Performance Indicators
- Performance Measurements
- What is Manufacturing Reliability
- Process Reliability
- Design Reliability
- Reliability provided by Maintenance Departments

MODULE-3

Leadership, Organization, and Skills

- Developing Teams
- Organizational Structure
- Roles and Responsibilities
- Reward Structure
- Skills Development and Training
- Leaders and Managers
- Change Management in Practice

TRAINING CURRICULUM

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Day - 2

MODULE-4

Equipment Reliability
- Inherent Reliability and Best Attainable
- Installation Practices and Precision Maintenance
- Calculating Reliability
- Analyzing Reliability
- Identifying Where to Focus
- MTBF, MTTR, MTBM, Weibull
- Strategies that reduce downtime
- Preventive Maintenance Strategies
- Predictive Maintenance

MODULE-5

Manufacturing Process Reliability
- Reliability of Processes versus Equipment
- Solving Reliability Issues
- Lean approach to problem solving
- Bottleneck analysis and Theory of Constraints
- Other Process Improvement Methods and Root Cause Analysis
- Root Cause Analysis Exercise
- Safety in Focus

TRAINING CURRICULUM

MODULE-6

Work Management
- Identification of Work
- Prioritization
- Planning
- Scheduling
- Supervising
- Executing
- Closing Out and Analyzing

MODULE-7

Materials Management
- Procurement
- Logistics
- Warehousing Practices
- Leadtime's/Re-Order Points, and Economic Order
- Quantity
- Kitting
- Staging

MODULE-8

IoT, Industry 4.0 and Computer Systems
- Computerized Maintenance Management Systems
- Interactions with ERP systems and DCS systems
- Asset Health Databases
- Considerations for moves to Industry 4.0

Day - 4

MODULE-9

Capital Projects Excellence
- Difference between the Capital Projects Role and the Operations and Maintenance Role
- Navigating possible conflicts with Operations and Maintenance Life Cycle Cost
- Optimizing Life Cycle Profitability

MODULE-10

Turnaround Management
- Turnaround Management
- Turnaround Countdown Processes
- Strategies to Control Turnarounds

MODULE-11

Management and Business
- Overview
- Performance Measurements and KPI's
- Change Management Theory and Practice
- Translating Asset Management Goals to Reliability and Maintenance
- Group exercise
- Individual exercises

TRAINING CURRICULUM

MODULE-12

Brownfield projects and existing facilities
- Improving the performance of an existing facility
- Specific considerations for green field projects
- Balancing requirements

CERTIFICATE

Participants will receive a certificate of attendance for the course.

If attendees choose the option to be registered for a Certified Maintenance and Reliability Practitioner, Certified Maintenance and Reliability Technician examinations, they will get further instructions and support to register to take the exam at any of the hundreds of available Pearson Vue test centers approved by the Society of Maintenance and Reliability Professionals.

The CMRP certification program is the only ANSI (American National Standards Institute) accredited certification program for Reliability and Maintenance practices and is aimed at people managing processes within the field, as well as Maintenance and Reliability Engineers.

The CMRT certification program aimed at Technicians that wish to combine their knowledge of on technical skills to current best practices for more information on the respective certifications can be found at the website of the owner of the certification programs, the Society of Maintenance and Reliability Practitioners at **www.smrp.org.**

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