



# BII WORLD

Engage • Enlighten • Empower



## MASTERCLASS MAINTENANCE & RELIABILITY PRACTITIONERS

**15 - 19 April 2024**

**10:00 - 14:00 Eastern Standard Time (EST)**

**15:00 - 19:00 Greenwich Mean Time (GMT)**



**Online Virtual Classroom Training**



**18 Hours Live Interactive Sessions**

## TRAINER PROFILE



### MICHAEL EISENBISE

**Reliability Process Implementation Specialist**  
**+ 40 Years Experience in Maintenance & Reliability**

Michael Eisenbise has 43 years of maintenance technology and reliability experience.

Eisenbise is a Certified Maintenance and Reliability Professional (CMRP) with the Society for Maintenance and Reliability Professionals Certifying Organization (SMRPCO), a Certified Plant Engineer (CPE) with the Association of Facility Engineers (AFE), a Certified Plant Maintenance Manager (CPMM) with the AFE, and a Certified Reliability Leader (CRL) with the Association of Asset Management Professionals. He is a registered Professional Engineer (PE) in Florida. Eisenbise holds a Bachelor's Degree in Engineering, a Master's Degree in Mechanical Engineering from Tennessee Technological University, and a Master's Degree in Maintenance and Reliability from Monash University in Australia.

Michael is a former Chairman of the Society for Maintenance and Reliability Professionals. SMRP), a past board member for SMRP Certifying Organization, SMRPCO, past Chairman of the Houston Chapter of the Society of Reliability Engineers, and past Regional Vice President for the Association of Facility Engineers – Region 9



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## COURSE DESCRIPTION

Companies today face increasing competition and decreasing margins in the global arena. A culture combined with visionary leadership, relentless pursuit of process and cost reduction done right are the ingredients required for survival and growth. Equipment must be safe, reliable, and process variability must be eliminated. Your employees must be motivated and supported with targeted training and a robust and efficient organizational structure.

This course is designed to heighten the learning experience and to provide an immersive training environment that maximizes the interaction between attendees and the instructor, and between the attendees



## CERTIFICATION

The Certified Maintenance & Reliability Professional (CMRP) program is the #1 leading credentialing program for certifying the knowledge, skills, and abilities of maintenance and reliability professionals worldwide.

The CMRP is accredited by the American National Standards Institute (ANSI), which follows globally recognized ISO standards for its accreditation and processes.

Earning this certification means earning a coveted credential recognized across all industries internationally.

To register for CMRP exam, click on the below link and follow the on screen instructions.

<https://smrp.org/CMRP-Registration>

To find the nearest authorised testing centers, click on the below link

<https://smrp.org/Certification/Test-Center-Search>



## LEARNING OBJECTIVES

- Improve attendees understanding of the best practices of Maintenance and Reliability centered around the SMRP's 5 pillars of excellence.
- Define Known Maintenance and Reliability Best Practices
- Develop and understand maintenance/reliability leading and lagging KPIs for an Organization
- Understand the Maintenance Planning and Scheduling Process
- Understand storeroom processes
- Develop a PM Procedure
- Utilize ISO standards to define the following for specific assets:
  - Equipment hierarchy
  - Equipment boundaries
  - Failure mechanisms
  - Failure causes
  - Detection method
  - Maintenance activity
- Learn what works and what does not work in regard to improving equipment reliability





# TRAINING METHODOLOGY

1. Real Time Online Delivery
2. 18 hours of Live Interactive Sessions
3. Assessments
4. Learning Kit

Each delegate will receive the following handout material in an electronic format.

- White paper which describes how to provide criticality ratings to assets and avoid the common mistake of applying risk ratings to assets.
- Discussion of the six failure curves
- Sample document on how to publicize short term wins in order to garner support for a maintenance and reliability program.
- All hyperlinks in slides.
- CMRP Candidate Guide for Certification
- Sample CMRP test, in MS Word format, along with answers.
- White paper explaining Mean Time Between Failures (MTBF) and the pitfalls of using MTBF.
- Noland and Heaps Reliability Centered Maintenance Document published in December 1978. Document utilized to launch RCM. Rare typed document, that has been scanned.
- Phases of a lubrication program
- Presentation, to include notes page. Most information presented is included in notes.
- Reliability Block Diagram (RBD) document describing RBD calculations.
- Reliability Engineering Skills MS XL document that describes the majority of Reliability Engineering skills and skill levels. Can be used to develop job descriptions, etc.
- Weibull data in MS XL can be used by delegates to practice Weibull graphing.
- Complete information on the sample graphs included in presentation
- Weibull graph paper to be used to practice Weibull plotting.
- Article on Barringer Production Reliability



## WHO SHOULD ATTEND?

- Maintenance Managers
- Maintenance Superintendents
- Maintenance Engineers
- Maintenance Planners
- Reliability Engineers
- Plant Managers
- Engineering Managers
- Manufacturing Managers
- Production Managers
- Operations Managers
- Asset Managers





| BREAK DOWN DAY TIMING     |            |
|---------------------------|------------|
| Session 1                 | 60 Minutes |
| 1st break                 | 10 Minutes |
| Session 2                 | 60 Minutes |
| 2nd break                 | 10 Minutes |
| Session 3                 | 60 Minutes |
| 3rd break                 | 10 Minutes |
| Continuation of Session 3 | 30 Minutes |



## SUGGESTED READING MATERIALS FOR CMRP EXAM:

- Maintenance & Reliability Best Practices  
by Ramesh Gulatti
- Making Common Sense Common Practice  
by Ron Moore
- Reliability Centered Maintenance  
by John Moubray





# DAY 1

- 1.1. Course Overview
- 1.2. Introduction of Speaker
- 1.3. Overview of files provided to delegates,
- 1.4. Certified Maintenance and Reliability Professional (CMRP) sample test
- 1.5. Introductions of Delegates
- 1.6. What would the delegates like to get out of this course?
- 1.7. **Module 1 – Body of Knowledge (BOK) Pillar 1 Business & Management.**
  - 1.7.1. Create strategic direction and plan
  - 1.7.2. Administer strategic plan
  - 1.7.3. Measure performance
  - 1.7.4. Managing organizational plan
  - 1.7.5. Communicate with stake holders
  - 1.7.6. Manage environmental –health-safety risk

# DAY 2

- 1.2.1. **Module 2- BoK Pillar 2 Manufacturing process reliability**
  - 2.1.1. Understanding the applicable processes
  - 2.1.2. Apply process improvement techniques
  - 2.1.3. Manage effects of change to processes and equipment
  - 2.1.4. Maintain processes in accordance with applicable standards and regulations

# DAY 3

- 3.1. **Module 3 -BoK Pillar 3 Equipment Reliability**
  - 3.1.1. Determine equipment reliability expectations
  - 3.1.2. Evaluate equipment reliability and identify improvement opportunities



## DAY 4

### • 4.1. Module 3-BoK Pillar 3 Equipment Reliability - Continued

- 4.1.1. Establish a strategic plan to assure reliability of existing equipment
- 4.1.2. Establish a strategic plan to assure reliability of new equipment
- 4.1.3. Cost-justify selected plans for implementation
- 4.1.4. Implement selected plans to assure equipment reliability
- 4.1.5. Review reliability of equipment and adjust reliability

### 4.2. Module 4- BoK Pillar 4 Organization & Leadership

- 4.2.1. Determine organizational requirements
- 4.2.2. Analyze organizational capability
- 4.2.3. Develop the organization structure
- 4.2.4. Develop personnel
- 4.2.5. Lead and manage people
- 4.2.6. Determining organizational requirements

### 4.3. Module 5- BoK Pillar 5 Work Management

- 4.3.1. Identify, validate, and approve work
- 4.3.2. Prioritize work
- 4.3.3. Plan work
- 4.3.4. Schedule work
- 4.3.5. Execute work
- 4.3.6. Document work
- 4.3.7. Analyze work and follow-up
- 4.3.8. Measure work management performance

## DAY 5

### 5.1. Module 5- BoK Pillar 5 Work Management - Continued

- 5.1.1. Plan and execute projects
- 5.1.2. Use information technologies effectively
- 5.1.3. Manage resources and materials

### 5.2. Module 6- Other maintenance and reliability topics

- 5.2.1. Maintenance metrics and formulas
- 5.2.2. Maintenance and reliability definitions
- 5.2.3. Reliability in Design
- 5.2.4. Effective teams
- 5.2.5. Total productive maintenance – TPM
- 5.2.6. Crow-AMSAA Reliability Growth
- 5.2.7. Weibull Analysis/Distribution
- 5.2.8. Condition monitoring techniques
- 5.2.9. 7 Habits of Highly Effective People



# FAQs

## **Does BII Online Virtual Training have the same value as traditional classroom training?**

Yes, BII Online Virtual Training offers participants; same training system as in-person, i.e face-to-face engagement with instructors, course material, interactive participation of all delegates, and personal support that they would expect to find in a traditional classroom.

## **What are main features of your online courses? Are they on-demand? Is it different content from the in-person offering?**

The content of the virtual training is similar to the in-person sessions and customized presentation makes it a richer online learning experience. As always, we will share presentation materials with attendees for later reference.

The online courses are not on-demand and recordings cannot be purchased. They are set on scheduled dates, live with an instructor and co-host via webinar software. While the day is shorter than an in-person session (4hrs vs 8hrs), timing are adjusted to accommodate attendees in different time zones and allow more time for one-on-one conversations via the Q & A.

## **What are the technical requirements for participation in a virtual course?**

All you need to participate in virtual training are:

- Desktop or Laptop or Tablet Computer, and Internet connection
- Webcam
- Headset with built-in microphone

## **Can I attend an online training session if I have a Macintosh computer?**

Yes, Our Online training systems does allow Macintosh computers, PCs, and computers running Linux to easily enter any of our online training sessions.

## **What type and version of browser will I need for online classes?**

It is recommended that you use the latest version of Firefox, Chrome or Internet Explorer for Windows and Firefox or Safari for Mac. Each of these is available for free download and also suggested you have the PDF Reader

## **How do I have access to the trainer for questions?**

As in the classroom, you will see the trainer in front of you and have the opportunity to ask questions at any time - all via audio and video transmission.

## **Is there a mute option within an online training session to minimize background noise from my audio connection?**

Yes, the Mute button will display to the right of your name as you hover your mouse over your name shown in the Participants panel on the top, right side of the Web conferencing screen.

## **What if I miss few sessions of the online training program?**

The training will be simultaneously recorded which will be provided to you as per request & requirement

## **Do I get a Certificate at the end?**

Yes, you will get a PDF version of your certificate of completion





