

## Maintenance & Reliability Best Practices Review

### Course Overview

Before you can develop a winning competitive strategy, you need to understand internal & external influences that affect your business. Therefore, an Organization's processes, people, and plant must be safe, reliable, and deliver value.

The Certified Maintenance Reliability Professional (CMRP) is the only certification accredited by the American National Standards Institute (ANSI), which follows the globally recognized ISO Standards for its accreditation purposes. The CMRP program is the top-rated credentialing curriculum for the knowledge, skills, and abilities for M&R professionals.

This 5-day session was developed to prepare Professional's aptitude with the Five pillars of SMRP (Society for Maintenance & Reliability Professionals) Body of Knowledge (BoK) which also includes review of the ISO55000 – Asset Management Standard, which covers:

- **Business & Management** is the area that describes the skills used to translate an organization's business goals into appropriate maintenance and reliability goals and objectives that support and contribute to the organization's business results.
- **Manufacturing Process Reliability** subject area describes the activities that apply to the equipment and processes for which the maintenance and reliability professional is accountable.
- **Equipment Reliability** relates to the maintenance and reliability activities to the manufacturing process of the organization to ensure that maintenance and reliability activities improve the manufacturing process.
- **Organization & Leadership**, this section describes processes for assuring that the maintenance and reliability staff is the most skilled and competent to achieve the maintenance and reliability organizational goals.
- **Work Management**, this area focuses on the skills used to get the maintenance and reliability work done effectively and efficiently. It includes maintenance planning & scheduling, materials & inventory management, and quality assurance of maintenance activities.

Acknowledging more than just textbook knowledge, this session validates the skills and abilities of maintenance and reliability professionals according to the objectives of the Body of Knowledge (BoK) This highly interactive course is designed to provide a training environment that maximizes the interaction between attendees and the instructor. Attendees will complete and review daily exercises designed to enhance and reinforce knowledge retention and provide the best opportunity for successfully passing the CMRP exam.

## Learning Objectives

- **Understand** what Maintenance Excellence is and how to apply to improve company performance & profitability.
- **Understand** the different areas of SMRP Five Pillars and how to use the best practices from each to improve your M&R Performance.
- **Develop** the knowledge & skills required to help your organization achieve excellence in maintenance and reliability performance through the development of strategic plans and effective maintenance strategies.
- **Define** Best practices within the M&R field.
- **Identify** Opportunities in your own workplace for improvement.

## Who Should Attend

*5 Pillars of Maintenance & Reliability Review* was designed specifically for individuals participating in or aspiring to further their professional careers and accreditation.

### By Job Titles:

- Maintenance Planners
- Managers/Supervisors/Leadership
- Reliability Engineers
- Maintenance Leads/Supervisors
- Lead Technicians & Operators
- Operations Supervisors
- Improvement Leaders
- Maintenance & Reliability Professionals

### By Sectors:

- Manufacturing
- Oil & Gas
- Consumer Goods
- Facilities
- Utilities & Power Gen
- Food & Beverage
- Petrochemical/Chemical
- Pharma

## Course Outline (Day 1 – Day 5)

### DAY 1

- **Introduction**
- Course Overview
- Evaluation Questions
- **ISO55000 – Asset Management**
  - 7 Clauses of the Standard & 39 Elements
  - 39 Sub-elements of the standard
  - GFMAM Asset Management Landscape
  - Institute of Asset Management Asset Management Models
- Sample Questions

### DAY 2

- **Pillar 1 – Business & Management**
  - Intro to ISO55000 & ISO 31000
  - Business Basics & Financial Understanding
  - Strategy Development & Planning
  - Organizational Culture
  - Communication
  - Change Management
  - KPI's
- Sample Questions & Exercises
  
- **Pillar 2 – Manufacturing Process Reliability**
  - Understanding Manufacturing Processes
  - Process Variability
    - Theory of Constraints (ToC)
  - RAM Analysis
  - Process Controls
  - Identifying the six major losses
  - Overall Equipment Effectiveness (OEE)
  - M&R Failure Analysis
  - Applying Process Improvement
  - Value Stream Mapping
- Sample Questions & Exercises

### DAY 3

- **Pillar 3 – Equipment Reliability**
  - Understanding Reliability
  - Understanding Reliability Expectations
  - Asset Management Strategy Development
  - Equipment Reliability Improvement
  - PM/PdM Overview & Development
  - Reliability Centered Maintenance (RCM)
  - Asset Taxonomy, Hierarchy, & BoM's
  - Asset Criticality
  - KPI's
- Sample Questions & Exercises

### DAY 4

- **Pillar 4 – Organization & Leadership**
  - Asset Management Leadership
  - Organizational Requirements
  - Organizational Structure
    - Aligning the org to M&R Goals & Objectives
    - Roles & Responsibilities
  - Personnel Development
  - Personnel Leadership & Management
  - KPI's
- Sample Questions & Exercises

### Day 5

- **Pillar 5 – Work Management**
  - Overview of Work Management Process
  - Work Prioritization
  - Planning/Scheduling
  - Performance Management
  - Project Management
  - MRO Storeroom Operations
- Sample Questions & Exercises
- General Review Question

### Certificate of Attendance

Upon the successful completion of this course, participants will receive a Certificate of Attendance bearing the signatures of both the Instructor and Course Organizer.



## Testimonials

- *Andy's explanations and illustrations are 100% relevant to our environment and he makes it so simple to understand!*
  - *Maintenance Manager – Food & Beverage Industry*
- *Andy's presentation skills and examples were rich in content and relatable!*
  - *Team Lead – Transportation Industry*
- *Learning from the most experienced instructor, delivering decades of not only theory but application was a joy!*
  - *Director of Maintenance – Oil & Gas Industry*
- *Andy's presentation skills and relating it to real life examples was excellent and made the sessions enjoyable!*
  - *Division Manager – Food & Beverage Industry*
- *If I have another opportunity to attend one of Andy's trainings, I will most definitely!*
  - *Operations Manager – Water Utility Industry*
- *Great discussions and elaborations of the learning objectives. Well done!*
  - *Regional Director – Manufacturing Industry*
- *Andy challenged us and his presentation style is excellent!*
  - *Plant Manager – Consumer Goods Industry*
- *The training was well defined. The content was related to our current state, and course was interesting, and interactive. The instructor was knowledgeable and has great experience and covered all our questions in detail and used examples to reinforce!*
  - *VP of Manufacturing – Manufacturing Industry*
- *The course instructor was knowledgeable and responsive to questions. Highly recommend for teaching and consulting!*
  - *Head of Asset Management & Integrity – Oil & Gas Industry*