

CMEO Ashore – Part III (Auditing)

1. Course Content

The following modules comprise the MSC CMEO Ashore Part III:

- Reliability Centered Maintenance (RCM)
- Root Cause Analysis (RCA)
- Energy Conservation (ENCON)
- Metrics & Reporting
- Ship Inspection & Regulatory

2. Pre-Requisites

This course is designed for MSC Ashore personnel (e.g. Port Engineer, Assistant Port Engineer, Ashore Analysts, & N10 Contracting personnel) who have a need for a basic understanding of the SAMM, PENG and Lifecycle consideration, and have not completed the MSC Port Engineer Academy curriculum or taken this course within the last 5 years. Users should already be familiar with MSC policies and practices as this lesson assumes a basic level of understanding.

3. Administration

Course registration is online at <http://mscn7training.com>. The course is required every 5 years for all N7 engineers. Completion of the course requires 100% attendance as well as passing an assessment to prove competence in the following SAMM Modules:

- Metrics & Reporting
- Ship Inspection & Regulatory

4. Schedule

The modules are conducted on Friday, starting at 8:00 and ending at 5:00. The maximum course size is 18 students on a first come first served basis. The courses are taught by Emprise, MSC, and Contract personnel.

The schedule is as follows:

CMEO ASHORE TRAINING - PART III AUDITING					MSC N711
Location: EMPRISE, Chesapeake, VA					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	
	CMEO ASHORE TRAINING - PART I SAMM PLANNING		CMEO ASHORE TRAINING - PART II PENG EXECUTION		CMEO ASHORE – Part III
TIME					Module
08:00-0900					Reliability Centered Maintenance (RCM)
0900-10:00					
10:00-11:00					Root Cause Analysis (RCA)
11:00-12:00					ENCON
<i>12:00 - 1:00</i>					Lunch
1:00- 2:00					Metrics & Reporting
2:00-3:00					
3:00-4:00					Ship Inspection & Regulatory
4:00 -5:00					

5. Module Descriptions:

Reliability Centered Maintenance (RCM): This module focuses on Reliability Centered Maintenance; the practice of doing the right maintenance at the right time to reduce costs and downtime while eliminating unnecessary or ineffective maintenance. This module, together with the one on RCA, explain how best to identify and justify the need for changes to PMs when submitting Feedback change requests.

Root Cause Analysis (RCA): This module covers the need for Root Cause Analysis in sorting symptoms from causes as an effective way to address, reduce or prevent future failures. Techniques to reduce perceptual blindness and bias, with tools available to assist with determining root causes are discussed along with methods on how to gather reliable information from operators and repair contractors. Proper use of RCA techniques allow users to identify potential issues on other equipment across multiple systems, ships, and ship classes.

Energy Conservation (ENCON): This module provides information on the Energy Conservation Program, the regulations behind the program, and the various shipboard systems that can benefit from the application of operational and technological improvements designed to reduce energy consumption and improve reliability.

Metrics & Reporting: This module will provide instruction pertaining to:

- Metrics currently being used by MSC.
- Future metrics being contemplated by MSC.
- Interpreting different types of metrics (i.e., what does a particular metric tell you).
- How metrics guide or influence decision-making.
- Types of data that reside in SAMM and PENG that could be used for creating new or better metrics.
- How users can access metrics data in SAMM and PENG themselves.
- Commonly encountered types of data quality issues (e.g., missing data, incorrect data, and inconsistently formatted data).
- How data quality issues impact the degree to which available data can be used for metrics and reporting purposes.
- What metrics and/or SAMM and/or PENG data should be reviewed in advance of a ship visit in order to improve the focus and quality of future ship visits.

Ship Inspection & Regulatory: This module will provide instruction pertaining to:

- What regulatory body inspectors look for when they inspect different types of equipment or systems.
- What constitutes acceptable versus unacceptable material condition with respect to different types of equipment or systems.
- The types of records regulatory body inspectors look for when they visit a ship.
- What constitutes acceptable versus unacceptable records.
- The types of incidental observations or issues are likely to attract an inspector's attention as they are walking around a ship, even though they may not be there to inspect a particular piece of equipment or system.