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# Reliability-Centered Maintenance (RCM)

**Course Description:**

This course teaches the fundamentals of Reliability-Centered Maintenance (RCM). The course is not process specific but gives the participant the fundamental tools and knowledge required to participate in any RCM analysis process. As an intermediate level course, the course will use statistical analysis, life-cycle cost analysis, and an understanding of equipment failure characteristics to achieve an optimal maintenance program that meets specified safety, environmental, and economic goals. Participants will learn to preserve equipment functions by identifying appropriate preventive maintenance (PM) tasks, predictive maintenance (PdM) tasks, failure finding tasks and other actions that protect against failure or mitigate the consequences of failure. Examples and exercises give participants hands on experience to help them begin to master RCM concepts.

**You will learn:**

* The importance of RCM
* History and types of maintenance
* RCM terminology
* Fundamental RCM philosophies
* Preparing for an RCM analysis
* Failure Modes and Effects analysis for RCM
* Evaluating failure consequences
* Use of Weibull and statistical analysis in RCM processes
* How to select preventive maintenance tasks and intervals
* How to select predictive maintenance tasks and intervals
* How to select failure finding tasks and intervals
* What other function protective actions are available
* When run-to-failure is appropriate
* Packaging and implementing RCM analysis results
* Barriers to implementation and getting buy-in from all levels

**Detailed Agenda:**

**Day 1**

INTRODUCTION

* The importance of RCM
* History and types of maintenance

INTRODUCTION TO RCM CONCEPTS

* RCM terminology
* Fundamental RCM philosophies

RCM ANALYSIS PREPARATION

* Preparing for an RCM analysis

FMECA FOR RCM

* Failure Modes and Effects analysis for RCM
* Evaluating failure consequences

**Day 2**

STATISTICS IN RCM

* Statistical principles used in RCM
* Use of Weibull analysis in RCM processes

SELECTING MAINTENANCE TASKS

* How to select preventive maintenance tasks and intervals
* How to select predictive maintenance tasks and intervals
* How to select failure finding tasks and intervals

**Day 3**

OTHER FUNCTION PRESERVATION STRATEGIES

* What other function protective actions are available
* When run-to-failure is appropriate

PACKAGING AND IMPLEMENTING RCM RESULTS

* Packaging and implementing RCM analysis results
* Barriers to implementation and getting buy-in from all levels