

Principles of Reliability Engineering Course

Training Date : 29th Apr.– 03rd May, 2012

Training Venue: Holiday Villa Doha, Qatar

Training Time: 0730 – 1430 Hours

Training Fee: USD3,500.00 Per Delegate

COURSE INTRODUCTION

It is a known fact that no industry can progress effectively without the knowledge and implementing of Reliability Engineering. Reliability is the best quantitative measure of the integrity of a designed part, component, process, product or system.

COURSE OUTCOMES

Upon completion, participants will be able to:

- Define, measure and predict reliability,
- Use key Reliability, Maintainability and Risk techniques to improve profitability and safety,
- Determine where, when and why each technique should be applied,
- Find out how to implement the analysis results effectively,
- Determine value added by this work,
- Learn how to get started on a Reliability Improvement Program.

COURSE OUTCOMES

- Comprehensive manual
- Supporting PowerPoint Presentation
- DVDs – Interactive Programmes
- Multi-Media – Diagnosing Machinery Failures – Essential Steps
- Case Studies
- Group Studies
- Self- Assessment Exercise

SELECTED CUSTOMERS



WHO SHOULD ATTEND?

- Production Supervisors – will find new tools in reliability engineering principles for understanding how operations can improve reliability of their processes. They will learn how to influence improvements in availability, how they can assist in reducing process failures, and how they can calculate the cost of unreliability for making business decisions to attack problems of unreliability.
- Engineering Personnel – will find new modelling techniques for predicting equipment reliability based on how equipment is installed, operated, and maintained to assist them in making life cycle cost decisions in justifying new equipment and new processes.
- Maintenance Engineers – will find reliability tools helpful for providing supporting evidence during root cause analysis failure investigations. They will find reliability tools and techniques helpful for understanding failure data in their CMSS systems, and they will see how to make business decisions, based on failure data, to justify making equipment more reliable.
- Managers – will find business aspect of reliability engineering principles helpful for measuring and motivating improvements in processes, procedures, people, plant to reduce cost of unreliability through the use of non-traditional tools as they ferret out hidden factories wasting time and money. They will learn how to predict future failures as a selling point for improvement projects.

COURSE CONTENTS

Day # 1

- Reliability Engineering Definitions, Goal and its importance.
- Reliability Vs Quality & Safety.
- Reliability Tools.
- Reliability Models.

Day # 2

- Failure, Faults and Function.
- Bath Tub Curves.
- Reliability Function.
- Reliability Predictions.

Day # 3

- Human Reliability.
- Preparing reliability data analysis.
- Reliable Centred Maintenance.
- Reliability Best Practices.

Day # 4

- Looking at Redundancy, fault tolerance and avoidance.
- Failure recording, analysis and corrective action.
- Understanding Reliability Tools:
 - ✦ MTBF
 - ✦ MTTR
 - ✦ PARETO Analysis
 - ✦ FTA
 - ✦ FRACS
 - ✦ 5 Whys
 - ✦ Weibull, Normal & Log - Normal Probability Plots
 - ✦ Bath Tub Curves for Mode of Failure
 - ✦ RCFA

Day # 5

- Total Productive Maintenance (TPM).
- Reliability Management.
- Management's role in reliability improvements.
- Management System for Reliability.

COURSE INSTRUCTOR

Mr. James M. Watterson, is graduated with Masters of Science (Engineering Technology) from Belfast Collage of Technology and he is the member of the several Professional Bodies;

- Fellow – Institute of Operation's Management
- Fellow – Royal Graphical Society
- Member – British Institute of Management
- Chartered Member – The Institute of Logistic and Transports.

He is a highly experienced consultant and trainer with over 35 years experience in various disciplines:- engineering, maintenance, marketing, management, project and contract management. Countries where experience has been gained include; Middle East, Mainland-Europe, North America, Australia and North Africa.

Since the past 30 years, he has delivered hundreds sessions of training courses in the area of technical and management such as;

- HaZOP and HaZARD Management Control
- Project Management
- Troubleshooting with all rotating equipment including turbines- gas and steam applications
- Failure Analysis and Machinery diagnosis
- Root Cause Analysis (RCA)
- Pump maintenance- centrifugal and reciprocating-Dismantling and rebuilding pumps
- Maintenance Planning and Scheduling
- Plant shutdown and Start-Up activities.
- Total Productive Maintenance
- Risk & Hazards Analysis
- Centrifugal Compressors – Operations and Maintenance
- Plant Shutdown and Start-Up Techniques
- Problem-solving and Decision Making
- Contract Management
- Advanced Supervisory Training
- Recruitment skills for hiring new employees
- Pipe design and pipeline trouble-shooting

In the Middle East and North Africa (MENA), he has conducted training course for the company such as; Saudi Aramco, Sabic Industries, Saudi Arabia Electricity Company, Crystal Co., Kuwait Petroleum Corporation, Banagas, Oman LNG, Oman Gas, Oman Occidental Refinery, Adgas, Gasco, Takreer and etc.



Registration Form

Please Send Your Registration to:

Tel:	006.013.2082143	Fax:	006.09.6178443	E-mail	info@cfpets.com
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Course Details

Course Name:	Principles of Reliability Engineering	Course Date:	29 Apr. – 03 May, 2012
Course Fee:	USD 3,500.00 Per Delegate	Venue:	Holiday Villa Doha, Qatar

Company Information

Organization	
Address	

HR / Training Manager

Invoice to be sent to

Name :		
Tel no.:		
Fax no.:		
E-mail :		

Participant Information

Participant # 1

Participant # 2

Participant # 3

Full Name :			
Job Title :			
Department :			
Telephone No. :			
Mobile No. :			
Fax No. :			
E-mail Address :			

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