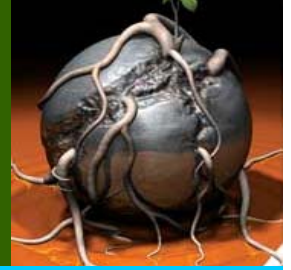


Root Cause Failure Analysis Experience



When: May 26, 27 & 28, 2010 / Time : 8:30 am to 5:00 pm / Venue: Great Eastern Hotel, Makati, Phils.



Seminar Package Includes:

- Morning / Afternoon meals and Lunch
- Complete Handouts on the course
- Selected Articles on RCM
- Exercises and Handouts on RCFA
- Actual Case Study on RCFA
- CD Copy of RCFA Training
- Certificate of completion

Who Should Attend:

- Maintenance Managers
- Facilities Managers
- Preventive Maintenance Group
- Predictive Maintenance Groups
- Reliability Engineers and Managers
- Maintenance Planners
- Operations and Production Managers
- Management and Decision Makers
- Continuous Improvement Groups
- Failure Analysts

Feedback and Testimonies:

- *Understood that RCFA is about using the word HOW and WHY and not WHO in order to arrive at the Latent Cause of the problem. As a member of the management, we are part of the Latent Cause.* From Ramonchito C. Bringel, Coal Plant Superintendent, Team Energy Corporation
- *Excellent presentation materials. Excellent knowledge on seminar topic. Excellent example related to RCFA. Trainer good sense of humor.* From J.R. Villanueva, Mechanical Supervisor, Team Energy Corporation
- *The course is well designed for maintenance personnel. The learning from this course is applicable to all plants with recurring failures. If these tools will be used in finding the course of equipment failure, the possibility to recur in the future is avoided.* From Fernando Cabula, Electrical Supervisor, Team Energy Corporation

When your maintenance people really becomes good at fixing failures then you have a big problem, it seems that you cannot get rid of the problem itself in the first place

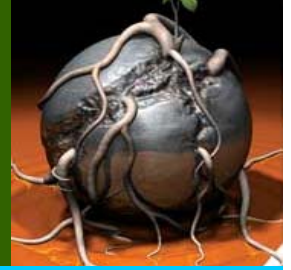
Our Contact Details:

Web: <http://www.rsareliability.com>
Email: rollyangeles@rsareliability.com
Mobile: +639209246163



RCFA Class, Team Energy, 2007

Root Cause Failure Analysis Experience



When: May 26, 27 & 28, 2010 / Time : 8:30 am to 5:00 pm / Venue: Great Eastern Hotel, Makati, Phils.



About Root Cause Failure Analysis

- It is a common practice due to lack of time and information that equipment and system failures are often investigated at a superficial level. As a result both operators and maintenance keep running unreliable plant, w/c cause repeated losses and become experts at fixing rather than eliminating the failure. This seminar you will learn to apply several practical systematic methods for analyzing performance problems to uncover root causes that will eventually end recurring problem making us proactive

RCFA Course Objective:

- Understand the importance of Root Cause Failure Analysis as a tool in achieving a Pro-Active environment in our workplace
- Provide an understanding on why we need to perform Root Cause Failure Analysis
- Provide an opportunity to practice Root Cause Analysis and the different tools on a real workplace problem situation
- Provide participants a working knowledge of Failure/Damage Analysis case study which will enable participants to correctly pinpoint design, installation, operating factors that contribute to short equipment lifespan
- Study the different types of wear and why a component fails and how to control them

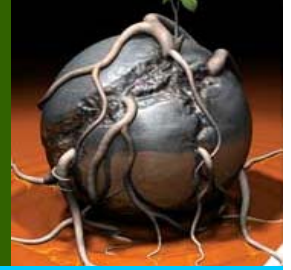
About the Resource Speaker

Rolly, is a seasoned international technical trainer, his portfolio of technical trainings include Maintenance Management courses such as TPM Tribology, Condition-Based Maintenance, RCM, Root Cause Failure Analysis, Planned Maintenance, World Class Maintenance Management, The 12 Disciplines, Lubrication Strategies, Oil Contamination Control, Maintenance Indices and KPI's, Maintenance Management System and much more. Rolly previously worked with Amkor Technology Phils. as a TPM Senior Engineer, an industry engaged in the manufacture of Integrated Circuit products and spearheaded their Planned Maintenance organization compose of maintenance managers and engineers. He was responsible for the dramatic reduction of unplanned breakdowns in their TPM Journey as well as RCM implementation on Facilities Air Handling Units and as well as their substation equipment. Rolly is currently working as an independent reliability and maintenance consultant. He will also be releasing his first book on World-Class Maintenance Management, The 12 Disciplines this July of 2009.



RCFA Class, Marubeni Phils. May 2008

Root Cause Failure Analysis Experience



When: May 26, 27 & 28, 2010 / Time : 8:30 am to 5:00 pm / Venue: Great Eastern Hotel, Makati, Phils.



DAY 1

- 0830 - 0900 - Coffee and Registration
0900 - 0930 - Welcome from resource speaker
- Take IQ Quiz on RCFA
- Objective of the Course
- House Rules
- 0930 - 1000 - **Module 1 : Understanding Failures**
- Are we accepting failures ?
- Lessons from Failures
- 1000 - 1015 - **Morning Break / Meals**
1015 - 1200 - **Module 2 : Understanding Root Cause Failure Analysis**
- RCFA Defined
- RCFA Applications
- When to use RCFA
- Workshop on sequence of events
- 1200 - 1300 - **Lunch**
1300 - 1400 - **Module 3 : Physical, Human & Latent Cause of Failures**
- RCFA Logic Tree Diagram
- Physical, Human and Latent Cause
- 1400 - 1500 - **Module 4 : Top Reasons Why We Need RCFA**
- The Need to Analyze Failures
- 1500 - 1515 - **Afternoon Break / Meal**
1515 - 1700 - **Module 5 : Human Errors**
- Why people commit errors ?
- Types of Human Errors
- 1700 - End of Day 1

DAY 2

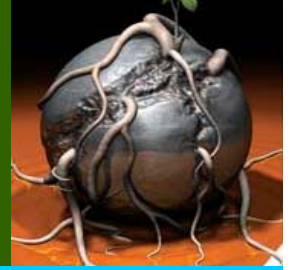
- 0830 - 1000 - **Continuation on Module 5 : Human Errors**
- Human Sensory Perceptions, Physiological Factors, Physiological Factors, Slip and Lapses

- 1000 - 1015 - **Morning Break / Meals**
1015 - 1100 - **Bonus Module : Bearing Failure**
- Brittle and Ductile define, Lubrication Failures, Fatigue Failures, Contamination Failures
- 1100 - 1200 - **Video Presentation : Challenger Explosion Case Study**
1200 - 1300 - **Lunch**
1300 - 1400 - Continuation of Video Presentation on Challenger Explosion
- 1400 - 1500 - Workshop on Challenger
1500 - 1515 - Afternoon Break / Meal
1515 - 1700 - **Module 7 : Why Do Mechanical Components Fail ?**
- Physical causes of failures , Different types of wear, Abrasive, Adhesive, Fatigue, Erosive, Corrosive Wear
- 1700 - End of Day 2

DAY 3

- 0830 - 1000 - **RCFA Workshop : Pump Failure**
- Determine physical, human & Latent Cause of Failure
- Team Presentation, Answer to Workshop
- 1000 - 1015 - **Morning Break / Meals**
1015 - 1200 - **Module 8: Discovering RCFA**
- Evidence, The Lifeblood of Root Cause
- Ways on Gathering Evidences, RCFA Tool Kit
- 1200 - 1300 - **Lunch**
1300 - 1500 - **Module 9: Mistakes in Root Cause**
- Lessons from Failures
- 1500 - 1515 - **Afternoon Break / Meal**
1515 - 1600 - **Module 10: Building RCFA as a Part of a Structured System**
1600 - 1700 - **Take Post Test on RCFA**
- Closing Remarks
- 1700 - End of RCFA Training

Root Cause Failure Analysis Experience



When: May 26, 27 & 28, 2010 / Time : 8:30 am to 5:00 pm / Venue: Great Eastern Hotel, Makati, Phils.



- 1 Delegate: Php 20,000.00
- 2 Delegates: Php 38,000.00
- 3 Delegates: Php 54,000.00
- 4 Delegates: Php 70,000.00
- 5 Delegates: Php 85,000.00

Payment Procedure and Policy:

- Payment can only be accepted through cash or check basis. For payments in check kindly Pay to RSA Reliability and Maintenance Consultancy Firm.
- An Official Receipt will be provided after issuance of complete payment for this event.
- Payment should be done during registration, kindly advise the delegates to carry with them the payment for this training. To avoid future problems on our part No payment, No entry policy would be enforced on this seminar workshop.

How To Register for this Event:

Step 1: Send us an email on the following:

- Full Name of Delegates: (FN, MI, LN)
- Position or Designation
- Department
- Name of Industry
- Type of Industry
- How is payment to be made Cash or Check

Step 2: We will send you the exact amount of fee to be paid for this event. With discount for 2 or more delegates as stated above.

Step 3: Once we have confirmed the names of the people you are going to send, we shall provide you a confirmation email. Strictly no walk-in.

Cancellation, Postponement Policy

- For delegates who will not complete the duration of the seminar and workshop, RSA Reliability and Maintenance Consultancy Firm will offer no refunds regarding this matter, certificates of attendance will only be provided to those delegates that will complete the three day seminar and workshop
- In the event that the seminar will be cancelled as a result of unforeseen events such as Acts of God or others uncontrolled reasons, RSA Reliability and Maintenance Consultancy Firm shall assume no liability whatsoever in the event this seminar and workshop be cancelled, postponed, move or rescheduled due to this fortuitous and unforeseen event.
- In case of a low turn out of delegates for this event, RSA Reliability and Maintenance Consultancy Firm reserves the right to cancel the event. An email will be sent to concerned parties.
- In the event you would like to cancel your participation in this seminar, kindly send us an email one week before the event is due. If you have made an advance payment and your delegates did not attend and have not informed us one week before the event, you will be charged with the full amount of the training fee.

Our Contact Details:

RSA Reliability & Maintenance Consultancy Firm

Website: <http://www.rsareliability.com>

Email: rollyangeles@rsareliability.com

Mobile: +639209246163

Workshop Phone: 049-837-07-64