

Meaningful Measures of Equipment Performance –

Understanding MTBF, MTTF, MTBA MTR, OEE and Failure Rate

October 18 to 19, 2012, El Cielito Inn, Sta. Rosa, Laguna, Philippines



Training Package Includes:

- Morning / Afternoon meals and Lunch
- Exercises and quizzes on MMP
- Softcopy of training materials in CD
- Selected articles on MMP
- Certificate of Attendance
- WCM Book Include

Brief Course Overview :

- As maintenance professionals we know the importance of maintenance to our organization goals and objectives. The difficulty is in translating the overall company strategy to a meaningful measure of performance.
- The old saying that "if you can't measure it, you can't manage it" is as true for performance as for anything else. Much of what is meant by performance often appears to be simply not measurable. It's OK looking at how things happened after the event & traditional measures can do this. What a manager needs is a much more dynamic, real time view of performance as it happens. People are central to this and qualities like motivation, confidence, leadership & perception are what needs to be understood. Getting quantifiable results and dependable measurements is crucial if resource and time are to be used to good effect. As the saying goes we are what we measure and if what we measure is important then our goals will definitely be rewarded

About the Resource Speaker:

Rolly, is a seasoned international reliability and maintenance consultant with 23 yrs of solid experience in the field. He had been invited in different countries and have conducted reliability and maintenance trainings in United Arab Emirates, India, Malaysia, Indonesia, Nigeria and Bangladesh. His portfolio of maintenance trainings include Maintenance Management courses on TPM, Lubrication, Tribology, Condition-Based Maintenance, RCM, RCFA, Planned Maintenance, World Class Maintenance Management, The 12 Disciplines, Oil Contamination Control, Maintenance Indices and KPI's, Maintenance Management Strategies and much more. Rolly previously worked with Amkor Technology Philippines, as a TPM Senior Engineer, an industry engaged in the manufacture of Integrated Circuit products and spearheaded their Planned Maintenance organization com-pose of maintenance managers and engineers. He was also responsible for the dramatic reduction of unplanned breakdowns in their TPM Journey as well as RCM implementation on their Facilities AHU units and as well as their substation equipment. Rolly is currently working as an independent reliability and maintenance consultant. Rolly had released his first book on World Class Maintenance Management - The Twelve Disciplines.



SUNPOWER CORPORATION

Meaningful Measures of Equipment Performance
August 27 to 28, 2009

ENROLL NOW !



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Objective of the Course :

- Understand the need and importance of measuring performance
- Learn to sell performance measurement as a tool for improvement
- Learn to use meaningful measures of performance to improve equipment reliability
- Determine the right measures of performance for your industry
- Understand the different types of equipment losses and its individual relationship on Overall Equipment Effectiveness

Who Should Attend:

- Maintenance Managers
- Facilities and Utilities Managers
- Preventive Maintenance Group
- Predictive Maintenance Groups
- Reliability Engineers and Managers
- Operations and Production Managers
- Management and Decision Makers
- Continuous Improvement Groups
- People in charge of their assets
- CMMS and Spare Parts Group
- People in charge of lubrication
- Maintenance Planners
- CMMS Groups

Feedback from Delegates

We were able to understand more the very basic structure of OEE which I'm sure that will help us a lot in determining different factors affecting our equipment and its performance. From Ryan Alinsod, EE, Sunpower Corporation

The training is so much interesting. It will really benefit every maintenance personnel. Thank you so much to Mr. Rolly Angeles for giving his time and effort to share his knowledge related to the maintenance and sustaining the efficiency and effectiveness of machine/equipment. May God bless him even more. From Michael Ballesteros equipment Technician, Sunpower Corporation

I have learned the different means of getting the overall effectiveness of the equipment and how to improve its availability thru the different methods of analysis regarding breakdowns and losses. From Eulemar Poyaoan, Sunpower

WCM Book Included



by
Rolly Angeles

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DAY 1

- 0745 - 0830 - Coffee & Registration
- 0830 - 0900 - Welcome and Introduction of resource speaker
- Define Objective of the course
- Discuss different modules to be covered
- 0900 - 0915 - Take MMP Pre-Test
- 0915 - 1000 - **Module 1 : Why We Need to Measure Performance ?**
- Understand the need and importance of measuring performance
- 1000 - 1015 - **Morning Breaktime**
- 1015 - 1100 - **Module 2 : Understanding Equipment Losses**
- Breakdown Loss
- Design Speed Loss
- Start-Up Loss
- Idling and Minor Stoppages
- Defect and Rework Loss
- Set-up and Adjustment Loss
- 1100 - 1130 - Take Quiz on Equipment Loss
- 1130 - 1200 - **Module 3 : Understanding OEE**
- Components of OEE
- Variations in Calculation
- Limitations of OEE
- 1200 - 1300 - **Lunch**
- 1300 - 1400 - **Continue Module 3**
- 1400 - 1500 - **Workshop on OEE**
- 1500 - 1500 - **Afternoon Break**
- 1515 - 1600 - Continue Workshop and Answer OEE Workshop
- 1600 - 1700 - **Module 4: Mean Time Indicator**
- 1700 - End of Day 1

DAY 2

- 0800 - 0830 - Coffee
- 0830 - 1000 - **Module 5 :Understanding MTBF**
- How to compute MTBF
- Limitations of MTBF
- Difference between MTTF and MTBF
- Understanding Failure Rate
- 1000 - 1015 - **Morning Breaktime**
- 1015 - 1100 - **Module 6 :Understanding MTTR**
- How to compute MTTR
- Limitations of MTTR
- 1100 - 1200 - **Module 7 :Understanding MTBA**
- Taking MTBA Snapshot Steps
- Case Study : CLF Planned Maintenance Case Study on MTBA (Mean Time Between Assists)
- 1200 - 1300 - **Lunch Break**
- 1300 - 1400 - **Workshop on MTBA**
- 1400 - 1500 - **Module 8 : Overview on Weibull Analysis**
- Principles of Weibull Analysis
- 1500 - 1515 - Afternoon Breaktime
- 1515 - 1600 - Workshop on Indices
- 1600 - 1700 - Take Post and Final Test
- Awarding of Certificates
- Closing Remarks
- 1700 - End of Seminar

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Training Investment Costs:

- 1 Delegate: Php 16,500.00 + 12% VAT
- 2 Delegates: Php 32,000.00 + 12% VAT
- 3 Delegates: Php 46,500.00 + 12% VAT
- 4 Delegates: Php 62,000.00 + 12% VAT
- 5 Delegates: Php 75,500.00 + 12% VAT

WCM Book Included in Package

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: 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:

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