



Reliability and Maintenance Consultancy Firm Presents

# TPM Planned Maintenance 4 Phases to Zero Unplanned Breakdown

July 30, 2021, Online Training – Microsoft Teams



**Phase 1: Restoration and Addressing the Basics**



**Phase 2: Addressing Design Weaknesses**



**Phase 3: Improving the Way we do Maintain Equipment**



**Phase 4: Predict Equipment Lifetime**

## Reasons why you need to attend this training

- LEARN** how to start-up and organize the Maintenance pillar and understand the most important preparations needed to improve the reliability of industry's assets and equipment.
- PROVIDE** a crystal clear direction and roadmap for maintenance on how the highest reliability of your equipment and assets in your industry
- LEARN** what support operators needs from Maintenance.
- LEARN** the details on how to integrate RCM (Reliability-Centered Maintenance) into the higher Phases/Steps of Planned Maintenance. Find out if TPM and RCM is contradict or complement to each other.
- DISCOVER** how to reduce unplanned breakdowns in your equipment and assets.
- LEARN** how to implement Planned Maintenance right the first time and avoid costly mistakes and seeing what works and not.
- LEARN** how to prepare and develop the Maintenance "MASTER PLAN".
- LEARN** what it takes to implement Planned Maintenance right the first time.
- LEARN** how your industry can save on cost on doing Maintenance.
- DISCOVER** what the effects will be if this will be implemented correctly in your industry.
- FINALLY** ask yourself, is my plant ready for the Planned Maintenance experience? And if Yes, learn how to implement is successfully and avoid those pitfalls.



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## Package Includes

- Link to be provided on PM4P training in ppt
- Lifetime access to RSA Reliability Newsletter
- 1 RSA book of your choice
- Certificate of Attendance to be given via email
- Quizzes and Exercises to be given online
- Actual Case Studies in Planned Maintenance

## Who Should Attend

- Maintenance and Reliability Managers
- TPM Office, Facilitators and Coordinators
- Facilities/Utilities Managers
- Preventive/Predictive Maintenance Group
- Reliability Engineers and Managers
- Operations and Production Managers
- Top Management and Decision Makers
- Continuous Improvement Groups
- Plant and Facility Engineering Staff
- Rotating Equipment Engineers
- Electrical and Mechanical Personnel
- CBM and PdM Personnel
- Maintenance and Reliability Managers
- Maintenance and Technical Support Group
- People in Charge of Planning and Scheduling
- People Involved in Repairs and Troubleshooting
- Head of Maintenance Organization
- People in Charge of Safety and Environment
- People Involved in Reliability and Maintenance
- Reliability Engineers
- Maintenance Supervisors

## About the Resource Speaker

Rolly, is a seasoned international reliability and maintenance consultant with 30 years of experience in the field. He had been invited in different countries and have conducted reliability and maintenance trainings in UAE, China, Thailand, Brunei, India, Malaysia, Indonesia, Nigeria, Botswana, Bangladesh and South Africa. His portfolio of maintenance trainings include Maintenance Management courses such as Total Productive Maintenance, Lubrication and Tribology, Condition-Based Maintenance, Reliability-Centered Maintenance (RCM), Root Cause Failure Analysis, Planned Maintenance, World Class Maintenance Management, The Twelve Disciplines, Oil Contamination Control, Maintenance Indices and KPI's, Maintenance Management System 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 spear-headed 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 their Facilities Air Handling Units and as well as their sub-station equipment. Rolly is currently working as an independent reliability and maintenance consultant. Rolly had written 6 books regarding the subject matter including this training on TPM Planned Maintenance 4 Phases to Zero Unplanned Breakdown.





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## Brief Overview About PM4P

This course covers a strategy for maintenance people to achieve a high reliability of their equipment and assets through the principles of Planned Maintenance Four Phases to Zero unplanned breakdown strategy. Phase 1 deals with Stabilizing MTBF, main activity involved here is restoration by establishing Equipment Basic Equipment Condition. Phase 2 deals with Addressing Equipment Weaknesses in Design and addressing them to prolong the lifespan of parts. Phase 3 and 4 of Planned Maintenance deals with developing a Maintenance Tasks Selection Diagram in order to classify which parts will fall on the different maintenance tasks available. This is where Reliability- Centered Maintenance can be used. Phase 4 if Planned Maintenance is about Predicting Failures through a system known as Condition-Based Maintenance and the use of Diagnostic tools to monitor condition of parts.

## PM4P Objective

- Provide a detailed and structured approach through the application of TPM's Planned Maintenance
- Realize the importance of establishing basic equipment condition in our equipment
- Provide an understanding on what Planned Maintenance is and what it wants to achieve
- Learn how to implement the four phases of Planned Maintenance as well as understand the six failure patterns and how it affects us in our day to day maintenance activities



Maintenance – Roadmap to Reliability Master Class Meralco Power Academy, September 13 to 15, 2017



Maintenance – Roadmap to Reliability Master Class ONGC, Derhadun, India, January 29 to 31, 2018

*Very alive, energetic and informative. Lots of resources like the Rolling Stones, powerpoint. Facilitator is an expert. Application of layman's term for non technician people. There are recognition (giving chocolates) and comparison on pre and posts exams. From Maureen Tating, Human Resources, Technical Documentation Specialists, Transition Optical*





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## One Day Planned Maintenance Online Training

### Module 1 : Planned Maintenance Overview

- Planned Maintenance defined
- 4 Phases of Planned Maintenance
- PM Preparatory Stage
- Planned Maintenance Versions
- Knowing MTBF and MTTR

### Module 2 : Phase 0 : Preparatory Stage

- Establish PM Vision and Mission
- Importance of Machine Ranking
- What constitute of breakdown ?
- Pilot Machine Selection
- Phase 0 Roadmap of activities

### Module 3 : Phase 1 : Stabilize MTBF

- The Need to Restore
- Three main activity for Phase 1
- Phase 1 Roadmap of Activities

### Module 4 : Phase 2 : Lengthen Equipment Lifespan

- Addressing Design Weaknesses
- Types of Wear / Deterioration
- Phase 2 Roadmap of Activities

### Module 5 : Phase 3 : Periodically Restore Deterioration

Preparing FMEA

- Understanding consequences of failure
- Maintenance Algorithm

### Module 6 : Phase 4 : Predict Equipment Lifetime

- Condition-Based Maintenance
- Other Maintenance Tasks
- Phase 3 & 4 Roadmap of Activities

### Module 7 : Applying the 4 Phases of Planned Maintenance

- JIPM Report on Planned Maintenance

Closing

Registration Start : 8:15 to 8:30 am  
 Start of Training : 8:30 am  
 Morning Break : 10:15 to 10:30 am  
 Lunch Break : 12:00 to 1:00 pm  
 Afternoon Break : 3:15 to 3:30 pm  
 End of Day 3 : 5:00 pm

Very alive, energetic and informative. Lots of resources like the Rolling Stones, powerpoint. Facilitator is an expert. Application of layman's term for non technician people. There are recognition (giving chocolates) and comparison on pre and posts exams. *From Maureen Tating, HR, Technical Documentation Specialist, Transition Optical*



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## Testimonies and Feedback:

- Highly related and useful to improve our maintenance performance. This has given me a clear knowledge of reliability maintenance. Gives us a clear view of our goals in maintenance with a corresponding roadmap and support. This training aims to equip us with the knowledge and skills on how to achieve a World Class Maintenance. I am very certain that this training will have a positive impact on our organization on achieving a reliable, efficient, cost effective, safe and environmental sound operation. From Jose Bernabe Sison, Maintenance Superintendent, DMCI Palawan
- Understanding on Planned Maintenance, set-up and scheduling to reduce breakdowns by having high availability and to reuse Preventive Maintenance scheduled checklists through the introduction and implementation of RCM , maintenance KPI's and indices. From Clifford Pampo, Maintenance Planner, DMCI Palawan
- Very interesting and useful for our daily basic work. It can lessen the breakdown and downtime on our equipment and machines because of this training. From Ernesto Catbagan, Plant Electrician, DMCI Palawan
- We were able to know more how well should we be planning in order to come up with better and effective activities. We are now farther than what we were before. The way we think on the problems, on what best approach we could provide. We now have our standards on creating a better planning. From Ellazar Salazar, Junior Engineer, DMCI Palawan
- I think the good points of this training is to improve the plant maintenance knowledge at the engine. Any trainee can feel free to raise questions and provide feedback and share. From Froilan Esmenda, Maintenancee, DMCI Palawan
- We learned a lot on proper and most accurate way on maintenance planning and to distribute tasks on our maintenance technicians. From Lawrence Ted Bundac, Plant Electrician, DMCI Palawan
- Introduction of a new system for the maintenance that can help to achieve our goals for the company and also give us good advise on how to solve analytical problems that may encounter in our current maintenance system. From Cyril Belmonte, Electrical Maintenance Supervisor, DMCI Palawan
- Enhance the knowledge of maintenance of equipment devices. Learning new ideas on CM, PM and all types of maintenance. The trainer have a wide ideas on topics. From Alvin Pacomios, Operation Superintendent, DMCI Palawan
- Understand the step by step activities to perform the improvement in conducting maintenance. Class activity for more understanding on the theory. Understand difference between MTBF and MTTF. Understand how to reduce unplanned breakdown. Understand that maintenance team alone is unable to perform the change to achieve the reliability in maintenance without operators. From Wan Munaifah Wan Hussein, Manager
- Simple, lots of knowledge have been transferred. Activities and stories were the best part. Had improved in mind setting on maintenance. From Muhamad Sharwan, Technical Executive
- Very interesting subject. A must in our field of maintenance. From Leo Estremera, PM Technician Onsemi
- Very detail, very informative, really opened up ideas on how to improve in our work. From Kamal Anas,





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## Training Investment Costs:

- 1 Delegate: Php 7,500.00 + 12% VAT
- 2 Delegates: Php 14,700.00 + 12% VAT
- 3 Delegates: Php 21,750.00 + 12% VAT
- 4 Delegates: Php 28,400.00 + 12% VAT
- 5 Delegates: Php 35,000.00 + 12% VAT

If your company is **NON-VAT** send us your supporting documents.

## Payment Procedure and Policy:

- Since this is an Online training, we accept bank or wire transfer or cheque payments. For check payment kindly pay to RSA Reliability and Maintenance Consultancy Firm. Do not shortcut my company name to avoid problems with the bank..
- Official Receipt will be provided after issuance of the complete payment together with BIR form 2307 for Philippine clients only.
- Payment should be done during the day of the training. If this is not possible, provide us a clear date on when we can get the payment.
- 10% Tax can be deducted from the total cost of training provided industry joining the training to provide BIR form 2307 together with the payment

## 100% Money Back Guarantee



• If for any reasons you were not happy or satisfied with the outcome of the training. Our small firm offers you **Unconditional 100% Payment Back** and you keep the WCM Book and all the materials provided during the training provided payment had been received during the registration period.

## Cancellation, Postponement Policy

- For delegates who will not complete the duration of the training, 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 whole training.
- In the event that the seminar will be cancelled as a result of unforeseen events such as Acts of God or blackouts or problems on internet connectivity. We shall resume the training the following day or we shall send you an email on the date that the training will be resumed.
- 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 regarding the cancellation.
- 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.
- In case the delegate register for this event will not make it on this event, kindly notify us through email regarding the changes in the name of the delegates.

## How To Register for this Event:

- Step 1: Send us an email on the following:
- Full Name of Delegates: (FN, MI, LN)
  - Email of participating delegates
  - Position or Designation / Department
  - Name of Industry
  - Type of Industry
  - How is payment to be made Cash or Check
  - Is your industry VAT or NON-VAT

Step 2: Once we have confirmed the names of those you will send, we will provide a confirmation email. Strictly No last minute registration will be allowed .



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