

Planned Maintenance 4 Phases

to Zero Unplanned Breakdown



Phase 1: Stabilize Mean Time Between Failure



Phase 2: Lengthen Equipment Lifetime



Phase 3: Periodically Restore Deterioration

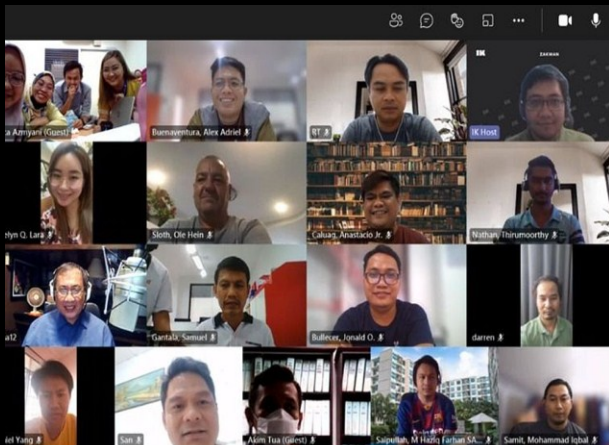


Phase 4: Predict Equipment Lifetime

May 24 to 25, 2022

Reasons why you need to attend this training:

- **LEARN** how to start-up and organize your TPM Planned Maintenance pillar and what are the most important preparations you need to undertake in implementing Planned Maintenance in your plant.
- **LEARN** what support Autonomous Maintenance need from the Planned Maintenance pillar.
- **LEARN** the details on how to integrate RCM (Reliability-Centred Maintenance) into the higher Phases/ Steps of Planned Maintenance. Find out if TPM and RCM contradict or complement each other.
- **DISCOVER** what JIPM consultants are looking for in your Planned Maintenance activities.
- **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 Planned Maintenance “MASTER PLAN”.
- **LEARN** what it takes to implement Planned Maintenance
- **FINALLY** ask yourself, Is my plant ready for the Planned Maintenance experience ?



- Facilitator is well adept on the subject matter.. *Mr. Angeles is very good in presenting the subject matter as well as his knowledge regarding the subject. With respect to his experience, there is no doubt that Mr. Angeles is one of the best person around to teach the maintenance concept.* From Jeson Solis / Engineer
- The facilitator is good and familiar / expert with Planned Maintenance. It help us enlighten our knowledge in TPM and maintenance tasks. *The subject is highly recommended to all maintenance personnel at any industry.* From Joel Tomanan / Sr. Engineer

Planned Maintenance Master Class, July 2021



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Seminar Package Includes:

- Training Materials on Planned Maintenance training materials in PowerPoint (Softcopy)
- Online Certificate of Attendance
- E-book (Readable Version) on World Class Maintenance Management – The 12 Disciplines Book (314 pages)
- Lifetime Access to RSA Reliability Newsletters

Who Should Attend:

- Reliability and Maintenance People
- Lubrication Technicians and Engineers
- Maintenance and Operation Managers
- Facilities and Utilities Managers
- Preventive Maintenance Group
- Reliability Engineers and Managers
- Continuous Improvement Groups
- Oil Analysts and Tribology Group
- Oil Laboratory Analyst
- Failure Analysis Team
- Management and Decision Makers
- Anyone involved in Reliability and Maintenance
- Plants initiating TPM Methodology



Feedback and Testimonies:

- *The thoughts and education of the training are taught clearly. It is a very important help for me and Sanyo if we are going to apply to apply the knowledge we learned. Mr. Rolly Angeles is a very inspiring person. His training is very well facilitated. Arigato Gosaimasu! From Vivian Grace Garcia / Technical Staff*
- *A very comprehensive topic discussion was imparted. The strategies and effective way of performing this type of maintenance was highly appreciated by all participants. From Jennifer Joy Siongco / Jr. Staff*
- *Facilitator is well adept on the subject matter.. Mr. Angeles is very good in presenting the subject matter as well as his knowledge regarding the subject. With respect to his experience, there is no doubt that Mr. Angeles is one of the best person around to teach the Planned maintenance concept. From Jeson Solis / Engineer*
- *The facilitator is good & familiar/expert with Planned Maintenance. It help us enlighten our knowledge in TPM and maintenance tasks. The subject is highly recommended to all maintenance personnel at any industry. From Joel Tomanan / Sr. Engineer*
- *The facilitator has a very good presentation and experience on the topics. I gained a lot of ideas and knowledge on how to plan for my machines to prevent break-down. I am confident enough to train my subordinates with this kind of system. Thank you very much! From Conrado Alapit Jr./ Engineer*



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About Planned Maintenance

- This course covers the principles of TPM Planned Maintenance 4 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
- 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

Planned Maintenance 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 6 failure patterns and how it affects us in our day to day maintenance activities

About the Resource Speaker

Rolly, is a seasoned international reliability and maintenance consultant with 30 years 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, Bangladesh, Botswana, Brunei, Thailand, China and South Africa. 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 w/ Amkor Technology Philippines, as a TPM Senior Engineer, an industry engaged in the manufacture of IC products and spearheaded their Planned Maintenance initiative compose 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 had written 9 books based on his original book on World Class Maintenance Management - The Twelve Disciplines. Each of the books Rolly wrote details a specific discipline on maintenance.



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DAY 1

- Coffee and Registration
- Introduction

Module 1 : Planned Maintenance Overview

- Planned Maintenance defined
- 4 Phases of Planned Maintenance
- PM Preparatory Stage
- Planned Maintenance Versions
- Knowing MTBF and MTTR
- Comparing Planned Maintenance and other maintenance systems

Morning Break / Meals

Module 2 : Phase 0 – PM Preparatory Stage

- Setting up the Planned Maintenance Core Team
- Establishing PM Vision and Mission
- Importance of Machine Ranking
- What will constitute a breakdown?
- Selecting the PM Pilot Machine
- Phase 0 Roadmap of Activities

Module 3 : Phase 1 Stabilize MTBF

- The need to restore
- Establishing Basic Equipment Condition
- Roadmap of Activities for Phase 1

Afternoon Break / Meal

Module 4 : PM Phase 2 Addressing Design Weakness

- Addressing design weaknesses
- Roadmap of Activities for Phase 2
- Understanding the Process of Wear
- Exercises on the Types of Wear

End of Day 1

DAY 2

Continue Module 4 on Phase 2 Lengthening Equipment Lifetime

Module 5 : PM Phase 3 Periodically Restore Deterioration

- Creating a Sustenance Process
- Integrating RCM into Phase 3
- Preparing FMEA
- Understanding the consequences of failures

Morning Break / Meals

- Understanding the different Maintenance Tasks
- Preventive and Predictive Maintenance Tasks
- The use of Default tasks

Lunch

Module 6 : PM Phase 4 Predict Equipment Lifetime

- Understanding Predictive Maintenance
- P-F Curve
- Run To Fail, Modification, Stand-by
- Algorithm and Decision Worksheet
- Phase 3 and 4 Roadmap of Activities

Afternoon Break / Meal

Module 7 : PM Phase 4 Predict Equipment Lifetime

- Planned Maintenance Success Story
- Starting an Improvement journey on reliability
- Summary and Closing

- End of Seminar



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Feedback and Testimonies of Previous Delegates

- The facilitator has a very good presentation and experience on the topics. I gained a lot of ideas and knowledge on how to plan for my machines to prevent breakdown. ***I am confident enough to train my subordinates with this kind of system. Thank you very much !*** From Conrado Alapit Jr./ Engineer
- ***Got a very clear understanding about PM. Presentation is very good and easy to understand.*** Materials got from the trainer is very useful and helpful for further procedure to start PM. This training is helpful to me to start my PM with confidence and much more clarity towards my objectives. From Sathveer Potlupi, PIPAVAV, Gujarat, India
- ***It is very much noticeable that Mr. Rolly Angeles had gone through the basic maintenance experience and had given his heart to his job.*** He knows the subject deeply. From Gopal Chunhun. PIPAVAV, Gujarat India
- I am very inspired to my duty and role about maintenance. ***This is a very good training about maintenance and about the maintenance people.*** From Piyush Adroja, PIPAVAV, Gujarat, India
- Trainer was very knowledgeable, majority of the members, almost all from maintenance team have attended. ***One thing sure is about the training is all maintenance people will sing the same song or at least will know the song which we are talking or explaining about.*** From Sri Balaji, PIPAVAV, Gujarat, India
- With a good knowledge contents, it was really new things that I've learned. ***As a G.E.T. it was my first training within my first month, I didn't know how it was practically, but still I understood most of the things that Mr Rolly learned.*** But the main things are the forms that you have provided us. From Anand Mehta, PIPAVAV, Gujarat, India
- This training is able to show the path that how we can implement TPM in our organization in an effective manner. ***We also enjoy the whole training due to Mr. Rolly's friendly nature and deep knowledge about the training source.*** From Ajeet Singh, PIPAVAV, Gujarat, India
- Good points about this training are all inspiring videos, all examples given by Rolly, way of presentation, reality about maintenance, all the sheet, forms on MTBF, how to implement Planned Maintenance in our plant. ***Also respect about maintenance and its people and also give inspiration and increase the moral of maintenance people. Thanks, I get this opportunity in my life.*** From Mihir Upadhyay,
- ***This will assists Botash to always remember that operators and engineering must stop blaming each other whenever a major breakdown occur*** and should work together to improve the lifetime of the assets. From Gabedi Abofilwe, Senior Planning, Engineering
- Good course content, training aids, technical knowledge, instructor effectiveness were excellent. ***It does not teach you about work environment only but how to approach life.*** From Norma Moeketsi, Maintenance Planner, Engineering Reliability, Botash Ash
- ***Very relevant with our situation. This training will help a lot if we change.*** Operators becoming engineering partners instead of being customers. From Madeswi, P.P. Engineering, Botswana Ash

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Training Investment Costs:

- The cost of this training is PM4P @ PHP 15,500.00 per head
- Online Training Platform will either be Zoom or Ms Teams.

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. We will be using MS Teams as the online platform.



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