

File No. RSA-001  
revision. 4 – January 06, 2009

## COMPANY PROFILE

# RSA RELIABILITY & MAINTENANCE CONSULTANCY FIRM

In industries today, the law of the jungle applies, *survive or be left behind*, that's why the need to adopt the best maintenance practices is a must . . .



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Address : Block 27, Lot 10, Golden City  
Sta. Rosa., Laguna  
Tel. No. +6349837-764,  
Mobile +63920-924-6163  
Email ID [rollyangeles@rsareliability.com](mailto:rollyangeles@rsareliability.com)



## COMPANY PROFILE . . . . .

**RSA RELIABILITY AND MAINTENANCE CONSULTANCY FIRM** is a single proprietor firm that provides high quality training and consultation on Reliability and Maintenance Best Practices for both local and foreign Industries. It offers industries the opportunity to uplift the technical competence on their maintenance human resource to a level of world class excellence by capturing Industries Best Practices. These courses provides in debt details and wealth of information on Maintenance Best Practices because it believes that these strategies are what every industry needs to improve their equipment's reliability as each of them lower down their operating cost.

Its mission is to elevate the knowledge of Philippine Industries by sharing with them the Best Maintenance Practices and the most advance Continuous Improvement tools and strategies. This firm was established and born out of the need for industries to upgrade the skills & knowledge of every industry's maintenance engineers and professionals.

Our firm believes that in order to provide better and skilled maintenance people, they should start with the very basic foundation and that is by educating themselves with the basic principles of equipment's reliability. This firm offers industries with a wide selection of specialized courses on Reliability & Maintenance as these courses are designed for every maintenance engineers and professionals whose mandate is to optimize their equipment's reliability at the lowest possible cost.

Our services includes exclusive in-house training on the following

### **COURSES ON TOTAL PRODUCTIVE MAINTENANCE :**

- Understanding Total Productive Maintenance - JIPM Approach
- Understanding TPM's Autonomous Maintenance Steps 1 - 3 of Jishu-Hozen (Part 1)
- Planned Maintenance - Four Phases To Zero Unplanned Breakdown Strategy
- Understanding TPM's Focused Improvement - Kobetsu-Kaizen Pillar
- Relationship Between Equipment Losses and Overall Equipment Effectiveness

### **COURSES ON RELIABILITY AND MAINTENANCE STRATEGIES :**

- Lubrication Strategy - Understanding The Importance of Oil Contamination Control
- Reliability-Centred Maintenance for Industries
- Optimizing Equipment's Reliability - Gearing From Reactive To Proactive Maintenance
- Understanding Condition-Based Maintenance - Total Approach To Failure Prediction & Analysis
- Root Cause Failure Analysis for Equipment - Waging War With Failures
- Optimizing Preventive Maintenance Strategy

### **COURSES ON RELIABILITY AND MAINTENANCE CONCEPTS :**

- Meaningful Measure of Equipment's Performance - Understanding OEE, MTBF, MTTR, MTBA
- Basic Maintenance Concept - Gearing From Reactive to Proactive
- Maintenance Strategies Part 1 - Overview on Predictive Maintenance & Lubrication Strategy
- Maintenance Strategies Part 2 - Overview on RCFA and Basic Maintenance Concept
- World Class Maintenance Management - The 12 Disciplines
- Achieving Proactive Maintenance - A Culture Of Reliability
- Basic Concept of Reliability and Maintenance



## COMPANY PROFILE . . . . .

### Our Services includes the following

- Provides high quality and impact training on the courses provided and selected by industries
- Jump-start TPM activities on plants initiating TPM strategy
- Conducts regular assessment, facilitation and consultation on TPM activities
- Provide guidelines and directions on how to initiate the different pillars of TPM
- Facilitate strategic maintenance session for the maintenance people
- Facilitation on Root Cause Failure Analysis implementation
- Provides a detailed step by step approach on plants initiating a lubrication strategy in your plant
- Provides a detailed approach on how to maximize a condition-based strategy in your plant
- Provides facilitation and consultation on Reliability-Centred Maintenance activities
- Conduct initial assessment on plants current maintenance structure and provides recommendation
- Assess maintenance craftspeople training needs analysis

In addition to the above, **RSA RELIABILITY AND MAINTENANCE CONSULTANCY FIRM** is A duly registered firm with the following details :

- a) DTI Certificate Number : 00167662, issued on June 27, 2005 at Calamba, Laguna
- b) City Permit Number 0167154, issued on July 7, 2005 by the Office of the Mayor, Sta. Rosa, Laguna.
- c) Income Tax Type : Value Added Tax (VAT) with TIN Number - 239-886-745-000

### Our Contact Details :

Address : Phase 3, Lot 27, Block 10, Golden City, Sta. Rosa Laguna  
Philippines, ZIP Code: 4026

Office : +6349-837-0764

Mobile : +63920-9246163

Email : [rollyangeles@rsareliability.com](mailto:rollyangeles@rsareliability.com)

Website : [www.rsareliability.com](http://www.rsareliability.com)

Rolando S. Angeles  
Reliability Consultant



## CONSULTANT'S PROFILE & EXPERIENCE . . .

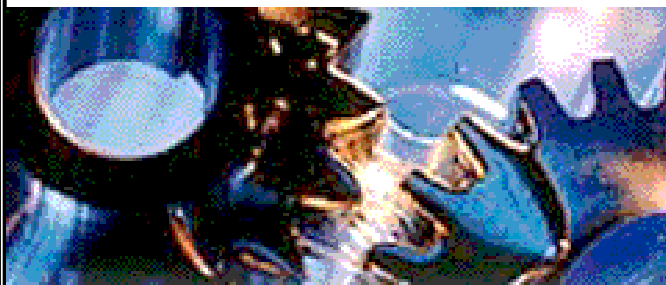
*22 years of experience on reliability . . .*

- **1985** - Graduated from Mapua Institute of Technology with a degree of Bachelor of Science In Mechanical Engineering (BSME)
- **1986** - Passed PRC Licensure Examination for Mechanical Engineering
- **1987 - 1988**  
Worked as a Preventive Maintenance System Specialist for Superior (SG) Shipping Corporation
- **1988 - 1994**  
Worked as a Product Development Engineer at Sharp (Phils) Corporation
- **1994 - 2002**  
TPM Senior Engineer at Amkor Technology Philippines specializing on the TPM Pillar of Planned Maintenance and Focused Improvement
- **2002 - 2004**  
Worked as a Technical Training Specialist at Lepanto Consolidated Mining Company focusing on Reliability and Maintenance
- **2005 - Present**  
Establish RSA Reliability and Maintenance Consultancy Firm and provides consultancy & Training on Maintenance Best Practices



### About the resource speaker

- **Rolly Angeles** is a seasoned technical trainer. His portfolio of technical trainings includes TPM, RCM, Tribology, Condition-Based Maintenance, Planned Maintenance, World Class Maintenance, Lubrication Strategies & many more
- Rolly previously worked with Amkor/Anam a multi-national company engaged in the manufacture of IC products and spear-headed Amkor's Planned Maintenance Organization composed of Maintenance Managers. He was responsible for the dramatic reduction of breakdowns in their TPM Journey as well as RCM implementation on Facilities AHU and Sub-stations



**Maintenance Excellence**

Rolly Angeles



## **RSA Lists Of Reliability and Maintenance Courses . . . .**

### **COURSES ON TOTAL PRODUCTIVE MAINTENANCE**

#### **TPM - Understanding Total Productive Maintenance – JIPM Approach (3 days )**

In today's manufacturing industries, more and more companies are seeking ways to improve their plant's performance through the application of continuous improvement tools such as TPM. Although it originated from the Japanese, TPM is not culture bound but rather its principles can be applied to any culture as long as people accept TPM as a way of life. TPM improves the manufacturing process through utilization of employee involvement, empowerment and closed-loop measurement of results. Learn the basic principles of TPM and how it can apply to your industry . . . . .

#### **AM1 - Understanding TPM's Autonomous Maintenance Step's 1 to 3 ( 2 days )**

This course shows the importance and benefits of introducing an Autonomous Maintenance strategy and what it will achieve if correctly applied in the workplace. Autonomous Maintenance are the activities in which each worker performs daily cleaning, lubrication, inspection and parts replacement in order to establish Basic Equipment Condition. This course tells us the importance that Autonomous Maintenance is not just the transfer of task to operators but teaching operator that their responsibility does not end from just operating the machine itself. Autonomous Maintenance is about changing the mindset of operators from *I fix you operate to operators take care of our equipment's* . . . . .

#### **PM4P - Understanding Planned Maintenance 4 Phases To Zero Unplanned Breakdown ( 3 days )**

This course covers the principles of TPM's Planned Maintenance Four Phases to Zero Unplanned Breakdown Strategy. Phase One deals with Stabilizing MTBF, main activity involved here is restoration by establishing our equipment's Basic Equipment Condition. Phase Two is all about Addressing Equipment's Weaknesses in Design & 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 Four of Planned Maintenance is all about determining the parts that will undergo Predictive maintenance through a system known as Condition-Based Maintenance & the use of diagnostic tools to monitor parts condition.

#### **OEE - Understanding Relationship Between Equipment Losses and Overall Equipment Effectiveness ( 1 day )**

OEE is the primary measure of performance in TPM. It is calculated by multiplying the availability, efficiency and quality rate of an equipment. This course allows us to understand the 7 major losses we suffer each day and its relationship with OEE. Each losses is being discussed in detail and how it can reduced or eliminated. What is important is for our people to understand what losses our equipment is suffering & how to measure it.



## **RSA Lists Of Reliability and Maintenance Courses . . . .**

### **FI - Understanding TPM's Focused Improvement Pillar – Kobetsu Kaizen ( 2 days)**

Focused Improvement or Kobetsu-Kaizen in Japanese includes all activities that maximize the overall effectiveness of equipment, processes and plants through uncompromising elimination of losses and improvement of performance. Many people ask about the difference between focused improvement activities that they may already be practicing. The basic point to remember about focused improvement is that if a company is already making all possible improvements in the course of routine work and small group activities, then activities of focused improvement are already in place.

### **COURSES ON RELIABILITY AND MAINTENANCE STRATEGIES**

### **LUB - Lubrication Strategy – Understanding Tribology and The Importance Of Oil Contamination Control ( 2 days)**

This course covers a wealth of information on the need to implement lubrication strategy in your plant. Learn why world class companies are adopting lubrication strategy, their benefits and what it can do to your plant. One of the problems most industries are facing is that we always end up being reactive despite our best efforts on Preventive Mtce, frequent unexpected failures and breakdowns will always results to high cost of maintenance due to a lack of an effective maintenance strategy. It is with our best intention to share with you this course and resources which can be adopted in your company. It is the intention of this course to share the information and experience on Contamination Control and its benefits to plant production and maintenance people.

### **RCM - Reliability-Centred Maintenance for Industries ( 3 days)**

Not all equipment are created equal even if they are of the same equipment type. Much of the maintenance requirements have much more to do on how the equipment will be operated or the operating conditions of the equipment. This course covers the principles of RCM which is a process used to determine the maintenance requirements of any physical asset in its present operating context. It entails us by asking 7 questions about the asset that is being maintained. The maintenance requirements of an asset will depend on these 7 basic questions :

- What are the functions associated performance standards of the asset in its present operating context ?
- In what ways does it fail to fulfill its functions ?
- What causes each functional failure ?
- What happens when each failure occurs ?
- In what ways does each failure matters ?
- What can be done to predict or prevent each failure ?
- What should be done if a suitable proactive tasks cannot be found ?



## **RSA Lists Of Reliability and Maintenance Courses . . . .**

### **CBM - Understanding Condition-Based Maintenance – Total Approach To Failure Prediction & Analysis ( 2 days)**

This course shows the importance & benefit of a Condition-Based Maintenance (CBM) program. The benefits of such a program will be realized in greater equipment reliability and longevity while at the same time enhancing budgetary cost containment goals. Operations and Maintenance will make a sound maintenance & operating decisions based on actual equipment performance rather than relying on the old standard of Time-Based maintenance intervals or even less desirable circumstance or waiting for the equipment to fail in service. According to maintenance specialists, at least \$250 billion of parts are wasted. Ineffective maintenance strategy is responsible for equipment failures, disrupted production schedules, delays in deliveries & poor production quality.

### **OER - Optimizing Equipment's Reliability – Gearing From Reactive To Proactive Maintenance – Streamlined RCM ( 3 days )**

This course is a streamlined approach on RCM or Reliability-Centred Maintenance. This is a two in one course where the basic principles of RCM are covered & how we can derive an approach on determining our maintenance requirements for our assets based from our existing procedures. OER is a strategy and method for improving the effectiveness of current maintenance programs and strategies. It starts with the existing maintenance program used within the plant. Working in cross functional teams from the shop floor, the team identifies what type of duplication exists within their own environment and what elements of the current maintenance program are useful and what are inappropriate. Once this is completed, the team establishes the most efficient and effective method for managing the maintenance of the asset.

### **RCFA - Root Cause Failure Analysis – Waging War with Failures ( 2 days )**

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, which cause repeated losses & become experts at fixing rather than eliminating the failure. This seminar you will learn to apply several practical systematic method for analyzing performance problems to uncover the root cause that will eventually end all recurring problem making us proactive. Most maintenance are contended with fixing and repairing failures, in fact we accept them as a normal routine work, stock up piles of spare parts in our inventory to make sure that they are available whenever a failure occurs. Fixing failures is a thing of the past for companies who would like to improve their equipment's reliability, their secret, they analyze their failures and determine the Root Cause of the problem so that appropriate solutions can be adopted. ***Trouble shooting is no longer an effective strategy. In today's competitive word of, the "Analysts" find real solutions, that's why the need to understand Root Cause Failure Analysis is a must . . . . .***



## **RSA Lists Of Reliability and Maintenance Courses . . . .**

### **COURSES ON RELIABILITY AND MAINTENANCE CONCEPT**

#### **WCM - World Class Maintenance Management – The 12 Maintenance Disciplines (3 days)**

Being World Class means the ability to compete anywhere in the world. World Class Maintenance Management simply means the art and science of managing maintenance resources performed by best in class industries from around the world. But in most industries, the question is often raised, is it really possible to control maintenance or the pressure over maintenance is controlling us. This course provides a discussion on how failure occurs in 3 zones and why most of our efforts on maintenance only addresses one zone which is the wear out failures. This course also covers the 12 Discipline in order to improve equipment's reliability. These 12 Disciplines are categorized into Three, The Basics, The Strategies and Advance Discipline. Learn what these disciplines are that most World Class companies perform.

#### **MMP - Meaningful Measures Of Equipment's Performance – Knowing MTBF, MTTR, MTBA, MTTF & Weibull ( 2 days)**

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 cannot manage it " is as true for performance as for anything else. Much of what is meant by performance often appears to be immeasurable. 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 and perception are what is needed to be understood. But before we can use them we need to understand these measurements.

#### **BMC - Basic Maintenance Concept – Understanding Reactive, Preventive, Predictive, Proactive Maintenance ( 1 day )**

This course covers the four strategies of Basic Maintenance Concept w/c are Reactive, Preventive, Predictive and Proactive and when each of them is feasible to use. Reactive Maintenance : This type of maintenance strategy simply means fixing it only when it fails as the saying goes when it ain't broke don't fix it when it fails then we come and fix it. In Preventive Maintenance, maintenance is performed on a fixed or scheduled Time-Based interval. Parts in which the rate of wear is directly related with age are subject to this type of tasks. Predictive Maintenance is performed not based on time but rather on the condition of equipment with the aide of diagnostic monitoring tools to determine the potential failures and lastly in Proactive Maintenance we are interested to Determine the Root Cause of the failure and correct it permanently to prevent recurring failures from recurring again in our equipments.



## RSA Lists Of Reliability and Maintenance Courses . . . .

### **PRO** - Understanding Proactive Maintenance – Achieving A Culture Of Reliability (1 day)

This course explains the facts why typically an industry remain reactive in nature. Being reactive simply means that addressing a failure when it happens, failure will come first and maintenance react on it. Even with the best structure on Preventive Maintenance and top of the line software's at hand, PM can't capture all the failures. Failures are inevitable and occur in three patterns, Infant Mortality, Random Failures and Wear or age-related failures, Understanding this failure patterns will definitely allow us to have a better perspective about how to derive a holistic structure that will capture majority of these failures.

## Rolly Angeles Maintenance Training Gallery . . . .

### AT AMKOR TECHNOLOGY PHILIPPINES



### AT LEPANTO CONSOLIDATED MINING COMPANY (Philippines)



### AT ANALOG DEVICES (Philippines)





## Rolly Angeles Maintenance Training Gallery . . . .

### AT IBIDEN PHILIPPINES



Planned Maintenance Training



OEE and Equipment Losses Batch 1



OEE and Equipment Losses Batch 2

### AT SANYO SEMICONDUCTOR (Philippines)



Planned Maintenance Training



Planned Maintenance Training



Planned Maintenance Training

### AT ADVANCE RESEARCH INSTITUTE (ARCI)



UNDERSTANDING PLANNED MAINTENANCE  
4 PHASES TO ZERO UNPLANNED BREAKDOWN



TOTAL PRODUCTIVE MAINTENANCE  
JIPM APPROACH



ROOTCAUSE FAILURE ANALYSIS



## Rolly Angeles Maintenance Training Gallery . . . .

### TEAM ENERGY CORPORATION FORMERLY MIRANT (Philippines)



Root Cause Failure Analysis  
Batch 1



Root Cause Failure Analysis  
Batch 2



Root Cause Failure Analysis  
Batch 2

### SHELL AND SAIPEM ENGINEERING (Nigeria)



Reliability-Centred Maintenance  
Training at Nigeria



Reliability-Centred Maintenance  
Training at Nigeria



Reliability-Centred Maintenance  
Training at Nigeria



Reliability-Centred Maintenance  
Training at Nigeria



Reliability-Centred Maintenance  
Facilitation at Nigeria



Reliability-Centred Maintenance  
Facilitation at Nigeria



## RSA Lists of Clients (In-House Training) . . . .



CYPRESS LIMITED  
MANUFACTURING



AMKOR TECHNOLOGY  
PHILIPPINES



LITTELFUSE PHILIPPINES  
CORPORATION



SANYO PHILIPPINES  
CORPORATION



LEPANTO CONSOLIDATED  
MINING COMPANY



INTEL TECHNOLOGY  
PHILIPPINES, INC.,



ALSTOM PHILIPPINES  
CORPORATION



BEST CHEMICALS  
PHILIPPINES INC.,



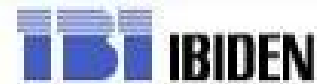
NEC TOPPAN CIRCUIT  
SOLUTIONS INC.



SAIPEM ENGINEERING  
(NINGERIA)



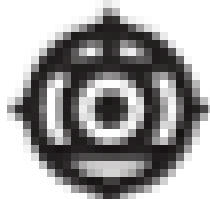
ANALOG DEVICES PHILIPPINES  
ASSEMBLY AND TEST OPERATIONS



IBIDEN PHILIPPINES  
INCORPORATED



SHELL PETROLEUM  
DEVELOPMENT COMPANY  
(NIGERIA)



HITACHI GLOBAL STORAGE  
TECHNOLOGIES PHILIPPINES  
CORPORATION



MIRANT PHILIPPINES  
TEAM ENERGY CORP.  
(SUAL AND PAGBILAO PLANT)



## RSA Lists of Clients (Offsite Training) . . . .

# PLANET EARTH

### RSA LISTS OF VALUED CLIENTS

- Acbel Philippines
- Advantek Philippines
- Allegro Micro Devices Analog Devices
- Alstom Philippines
- Amkor Technology Philippines
- Astec Power Phils. Inc.
- Atec Philippines
- Best Chemicals Phils. Inc.,
- Cebu Mitsumi Inc.
- CJ Philippines Incorporated
- Cypress Manufacturing Ltd.
- Fairchild Semiconductor
- Flour Daniel Inc. Phils
- Fujitsu Ten Corporation
- Fujitsu Corporation
- Geostar Philippines
- Hi-Cement
- Honda Philippines
- Ibsiden Philippines Inc.,
- Intel Philippines Mfg. Corporation
- Kepco Corporation
- Lepanto Mining Company
- Littelfuse Philippines
- Maxim Philippines Operating Corp.
- Meralco Corporation
- Mirant Philippines Sual Plant
- Mirant Philippines Pagbilao Plant
- Moog Control Corporation
- NEC Toppan (TNCSI)
- Nitetsu Micrometals Corporation
- On Semiconductor Phils. Inc
- Perkin Elmer Optoelectronics
- Philippine Airlines
- Philips Semiconductor
- PSI Technology
- San Miguel Corporation
- San Roque Power Plant
- Sanyo Philippines
- Shin-Etsu Magnetic Phils. Inc.
- Sunpower Philippines
- Toshiba Information Equipment
- Union Cement Corporation
- Vishey (Phils.) Inc.
- Zilog Electronics Phils. Corp.

***Maintenance Excellence***

Rolly Angeles



## What past attendees have to say about my seminars

Resource speaker is not selfish. He is really good in delivering the topics and very knowledgeable about it. *A very informative course & useful not only in the industries , this is something that every body should know. It is one of a kind . . .*

Mario M. Natividad / PM Engineer  
Union Cement Corporation  
Lubrication Strategy Seminar

Topics on both Oil Analysis and Contamination Control very well covered. The speaker has a very sound knowledge and experience on the topics discussed. The discussion is lively, venue is good and the time was well managed. *I am glad to know that we have this kind of training locally. The overall quality of the seminar is comparable to the seminar on Oil Analysis I have attended abroad and offered by foreign consultants such as Noria Corporation. This is one approach that every maintenance must know.*

Al Silva / Asst.. PdM Engineer  
MIRANT Philippines / Sual Station  
Lubrication Strategy Seminar

The thoughts and education of the training are taught clearly. It is a very important help for me & 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 !*

Vivian Grace Garcia / Technical Staff  
Sanyo Semiconductor  
TPM's Planned Maintenance Training

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.*

Jeson Solis / Engineer  
Sanyo Semiconductor  
TPM Planned Maintenance Training

*Rolly Angeles is one of the best trainers (World Class) I have ever met in my life. The delivery of the RCM course by him was so smooth and straight to the point.* Besides he combined technicality with intellectualism thereby carrying even the most assumed idle time along. The definition of the different tasks in RCM caught most of my attention. The RCM Information Worksheet simplifies the course to enable an ideal team to come up with the best maintenance strategies. Although it is a challenge to convince management team that is not trained on RCM to adopt, I will still insist that RCM is the best maintenance strategy world wide now.

Kalu Kalu  
Head of District Maintenance  
Shell Petroleum (Nigeria)

Read more feedback and testimonies from people that attended my training at  
<http://www.rsreliability.com/testimonials.htm>