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A PASSION FOR RELIABILITY

Capturing Industries Maintenance Best Practices

(RSA Reliability and Maintenance Courses)



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A Passion For Reliability - Capturing Industries Maintenance Best Practices

- Last February 2005, I started to venture out a career on my passion and specialization and started offering courses on my specialized field which is all about equipment maintenance. These courses are the sum of my previous experiences with industries such as Amkor Technology where I worked as a TPM practitioner for 7 years handling the pillars of Planned Maintenance and Focused Improvement where we have actually implemented and reaped its benefits. It also includes my knowledge and continuous research on best practices from the eastern and western part of the world, their conflicts and how they complement one another. The visits and seminars I've conducted with various semiconductor and non-semiconductor industries such as Power Plants where I have come to realized where the best standards in maintenance exists. My continuous interface with reliability and maintenance experts from around the world and the case studies my counterparts have shared with me through the years, the previous seminars on reliability I've attended and how we have initiated these strategies such as Lubrication Management and Condition-Based Management in my last employment with Lepanto Consolidated Mining Company & finally my passion for reliability which is the main reason why I remain independent, so that I can share this knowledge with other industries.
- These course have gathered much attention for industries seeking ways on how to improve their equipment's reliability as well as upgrading the technical knowledge & competency of their maintenance human resource to a level of world class excellence by capturing Industries Maintenance Best Practices. These powerful and proven courses provides an indebt details and wealth of information on the true meaning of Reliability & Maintenance. I am truly confident that these strategies are what every company needs to improve their equipment's reliability as they lower down their operating cost.
- With consistently focus on productivity and secondary to reliability & maintenance, our equipment often results to frequent unexpected failures, unscheduled costly repairs and much more our maintenance resources are often taken down by these untimely breakdowns, inevitable resulting to high cost of maintenance. What we need is the adaptation of a more effective maintenance strategy that is truly world class. **For maintenance, the question is often raised, Is it really possible to manage maintenance or the pressure over maintenance is the once managing us ?** Let me share w/ you that reliability is a culture and like any other continuous improvement initiative, it never ends, everything will start by cultivating the right mindset for all our maintenance people in our plant.
- Finally, it is also undisputed that among the challenges every maintenance manager face is maximizing their equipment's reliability through a traditionally, and often self-centered approach called Preventive Maintenance system. **Perhaps this practice is the very reason why approach in maintenance management remain to be costly and reactive rather than proactive.** Truly, these courses are designed for every maintenance engineers and professionals whose mandate is to optimize their equipment's capacity & reliability at the lowest possible cost.
- If I am to write down in one paragraph the most important learning's from my courses, it would be summarized below and I would like to share them with you. These are the seeds that we must plant in the minds of our people before driving any improvement initiative.

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LEARNINGS FROM ROOT CAUSE FAILURE ANALYSIS

- Never accept failures in your plant. Troubleshooting and repair is no longer an effective strategy. In today's competitive world of manufacturing, the analyst find real solutions to equipment problems. **Remember that when our people become really good at fixing failures then something is wrong**, since they are doing it much too often, but when we expect a different result from the same things that we are doing, it just ain't possible, the Chinese called this insanity.
- The distinction between a professional maintenance and a mechanic is a that a maintenance uses more of his brain than his hand to deal with problems while a mechanic uses most of the time his hand to deal with problems. Let us treat our people as maintenance professionals and not as mere mechanics.

LEARNINGS FROM MEANINGFUL MEASURES OF EQUIPMENT'S PERFORMANCE

- The best way to change a culture is to focus on results, remember, what gets measured gets done, if we don't measure our performance, then we are just another person with an opinion and in the real world of manufacturing opinions don't last forever.

LEARNINGS FROM LUBRICATION STRATEGY & CONTAMINATION CONTROL

- For equipment that fails due to lubrication, there is only one secret, just keep the oil clean if oil is kept clean, then there is no reason for it to oxidize and moreover no need to change the oil. **Oil should be change not based on the number of hours that it has run but by the number of contaminants it have.**

LEARNINGS FROM TOTAL PRODUCTIVE MAINTENANCE & AUTONOMOUS MAINTENANCE. . . .

- The best time to address a problem is when it is small, it is very hard to advance to any specialized maintenance activities & improvement efforts if equipment's Basic Condition had not been established, always remember our equipment's is a shared responsibility for both operators & maintenance people a lesson we must all learn from the Japanese

LEARNINGS FROM OPTIMIZING EQUIPMENT'S RELIABILITY. . . .

- The best maintenance strategy to adopt is knowing when to use the different maintenance tasks simultaneously with the aid of a Decision Diagram and that the degree maintenance requirements should always be based upon the consequences of failure itself.

LEARNINGS FROM PLANNED MAINTENANCE 4 PHASES TO ZERO UNPLANNED BREAKDOWN

- The real challenge in any Equipment's Reliability initiative is how to start an improvement in a reactive environment with the same amount of resources and time. Remember that best in class companies started from being reactive themselves.

LEARNINGS FROM WORLD CLASS MAINTENANCE MANAGEMENT - THE 12 DISCIPLINES

- Focus of every maintenance must be on Reliability and not Cost, because if reliability starts to improve cost will definitely go down & it cannot be the other way around, there will be times that focusing on reducing cost will hurt reliability, a lesson that must be taken seriously.
- There is no silver bullet program or strategy that can transform a plants reliability overnight all will start with its basic foundation and that is thru **"EDUCATION"** and this knowledge must be used to change the mindset of our maintenance resources.

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Here are some of the benefits we have gained from adapting these strategies.

AT AMKOR TECHNOLOGY PHILIPPINES WHERE I WORK AS A TPM SENIOR ENGINEER

- A dramatic reduction of equipment failures for 436 machines from 888 failures as of January 2001 to 14 as of September 2001 through the implementation of TPM's Planned Maintenance 4 Phases To Zero Unplanned Breakdown
- ATP Facilities, have dramatically reduced breakdowns from their 9 sub-stations from 49 times during the year 2000 to only 3 failures in the year 2001 through the effective implementation of Reliability-Centred Maintenance strategy

AT LEPANTO MINING COMPANY WHICH I WORK AS A TRAINING SPECIALIST ON RELIABILITY

- From page 3 of the year 2003 Lepanto Mining Annual report it states for the record that a reduction of maintenance and services cost by 20 million per year from an average of P 57 million to an average of P 37 million per year during the 2001 to 2003 period The reduction in maintenance cost was due to our Preventive / Predictive and lately our Condition-Based Maintenance initiatives. (CBM is one of the courses I offered to them.)

ACKNOWLEDGEMENT

- *In behalf of my family, I would like to acknowledge the following for giving me the motivation and enthusiasm to continue my passion for reliability as I am adding new courses for 2008 and that as I always mention in my closing, That whatever we do the learning's just never stops*

To the industries that have attended my seminars

Semiconductor Industries : Acbel Philippines, Advantek Philippines, Allegro Micro Devices Analog Devices, Amkor Technology Philippines, Astec Power Phils. Inc., Atec Philippines, Cebu Mitsumi Inc., CJ Philippines Incorporated, Cypress Manufacturing Ltd., Fairchild Semiconductor, Fujitsu Ten Corporation, Fujitsu Corporation, Ividen Philippines Inc., Intel Phils. Manufacturing Corporation, Littelfuse Philippines, Maxim Philippines Operating Corp., Moog Control Corporation, Nitetsu Micrometals Corporation, On Semiconductor Phils. Inc, Perkin Elmer Optoelectronics, Philips Semiconductor, PSI Technology, Sanyo Philippines, Shin-Etsu Magnetic Phils. Inc., Sunpower Philippines, Toshiba Information Equipment, Vishey (Philis.) Inc., Zilog Electronics Phils. Corp.

Non-Semiconductor Industries : Alstom Philippines, Best Chemicals Phils. Inc., Flour Daniel, Geostar Philippines, Hi-Cement, Honda Philippines, Kepco Corporation, Lepanto Mining Corporation, Meralco Corporation, Mirant Philippines (Sual & Pagbilao Plant), Philippine Airlines, San Roque Power Plant, Union Cement Corporation

And most specially to God Almighty for the blessings . . .

MARAMING SALAMT PO !