

World Class Lubrication Strategy

Understanding Tribology & the Importance of Oil Contamination Control

March 28 to 29, 2022, July 25 to 26, 2022, and December 5 to 6, 2026, Online Platform – Microsoft Teams

Who Should Benefit from this:

- 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

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.

What to Expect on This Training

- **LEARN WHY** every industry need to adopt an oil contamination control program in their plant and know what does contamination do to your equipment.
- **LEARN HOW** oil is being contaminated and if there is a way we can remove contamination in our lubrication and hydraulic systems
- **UNDERSTAND** that there a direct relationship between contamination and the rate of wear and how can we save 82% of wear in our equipment.
- **DISCOVER** if Oil Additives "As Seen On TV" really do their trick or not ?
- **UNDERSTAND** why do I keep adding oil in my equipment, what is the best test to determine this?
- **DISCOVER** the truth about your oil filters if they are truly doing its job or not of removing contaminants.
- **LEARN THE TRUTH** about Extended Oil Drain Interval, is it a myth or fact?
- **DISCOVER** why doing Time-based maintenance on changing oil is a thing of the past for World Class industries and learn what do they use?
- **UNDERSTAND** the different levels of Oil Analysis and learn which is the most important and sensitive test on oil and why
- **LEARN** the step by step activities on how to start a Lubrication Strategy in your plant and learn simple strategies how to reduce your lubrication costs and more

LUB Course Overview:

This course covers a wealth of information on the need to implement lubrication strategy in your plant. Learn why world class companies are adopting oil analysis and what are its benefits. It is with our best intention to share with you our information and resources on proven best practices on lubrication and oil contamination control which can be easily adopted by your industry



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LUB Training Objective:

- Provide basic knowledge on proper lubrication and contamination control
- Understand how to select the correct lubricant for your equipment
- Generate an awareness on our people how oil is being contaminated and how to reduce oil contamination in our equipment
- Have an understanding on the benefits we can reap on implementing a Lubrication Strategy in our plant and most especially on how we can save on cost
- Learn how to transition on changing oil from running hours to Condition-Based through Oil Analysis
- Learn how to save costs on lubrication for your industry Big Time

LUB Training Package :

- Training Materials on Lubrication Strategy 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

More Testimonies About Lubrication

- Detailed and systematic explanation of the importance and strategies. Exposure to different oil analysis tests and equipment used in the process. Exposure to terminologies in lubrication. Excellent presentation, detailed explanation and lively. **From Rajesh B.K. Sr. Engineer, Maintenance**
- Got an in-depth knowledge about wear, importance of oil analysis and strategies to start a lubrication analysis program. Your PowerPoint slides are excellent. You are so open that you shared all your power slides with the participants, really appreciable. **From Ninan C.S. Chief Manager, Maintenance.**
- Additional knowledge from lubrication oil can increase the profit of the company by avoiding unwanted breakdown of the equipment. **From Sreedharan N. Utility Engineer**
- Detailed and systematic explanation of the importance and strategies. Exposure to different oil analysis tests and equipment used for the process. Exposure to terminologies in lubrication. Excellent presentation, detailed explanation and lively. **From Rajesh B.K. Engineer**
- The training is relevant to the company and worth attending to. The seminar is an eye opening to a neglected aspect of maintenance practices and that is Lube Oil Analysis parallel with contamination control. The resource speaker has full knowledge of the subject matter and an intense conviction to transfer to the participants this knowledge. **From, Efren C.ruz,**



Lubrication Training, March 2021



Lubrication Training, May 2021



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LUB Day 1

Take Lubrication Pre-post Quiz

Introduction

- OEM and Leading Oil Manufacturers
- Common Industry Problems on Lubrication
- How Oil is Being Consumed

Module 1: All There Is To Know About Oil

- Definition of oil
- History of Lubrication
- Common Organizations on Lubrication
- SAE and API Standards
- Can you Use Diesel Engine in Gasoline Cars
- Function of oil
- Tribology Explained
- Properties of oil
- Advise of Additives as Seen on TV
- Types of Lubrication (EHD, Boundary, Mixed)

Module 2: Basics of Grease

- Definition of Grease
- Anatomy of Grease
- Function of Grease
- Types of Grease
- Common Grease Tests & Characteristics
- National Lubricating Grease Institute (NLGI)
- Application of Grease
- Understanding Bearing Failures
- How to determine the correct quantity of grease when greasing motors
- Grease Incompatibility Issues
- Correct Frequency and Interval of Greasing
- Best Practices on Greasing

Module 3: Understanding Contamination

- What causes oil to breakdown
- Many Forms of Contamination
- Understanding How Oil is Contaminated
- Effects of Water Contamination in Oil
- Sources of Water Contamination
- Oil Oxidation Chart
- Does Oil Really Wear Out?

Module 4: Understanding Oil Filtration to Reduce Contamination

- 5 Myths About Lubrication
- Filtration Spectrum
- Function of a Filter
- Mechanism of Filtration
- Absolute and Nominal Filtration
- Efficiency and Beta Rating of Filter
- Extended Oil Drain Myth or Fact?
- By-pass Filtration Applications

END OF DAY 1

10:15 to 10:30 am – AM Break

12:00 to 1:00 pm – Lunch Time

3:00 to 3:30 pm – Afternoon Break

LUB Day 2

Module 5: Total Oil Contamination Control Awareness

- Changing Our Culture on Lubrication
- 5 Wrong Myths About Lubrication
- 13 Recommended Strategies on Lubrication
- Proper Storage Room for Lubrication
- Case Studies on Oil Contamination Awareness

Module 6: The Importance of Oil Analysis

- What is Oil Analysis?
- Purpose of Oil Analysis
- How Does Oil Analysis Work
- Types of Tests on Oil Analysis
- Oil Analysis Tests for Different Types of Oil
- Sampling Location for Oil Analysis
- Tips on Oil Analysis Sampling
- Oil Sampling Frequency
- Conducting Oil Analysis in 3 Levels

Module 7: Level 1: Testing for Oil's Health and Cleanliness

- Particle Counter for Level 1 test
- ISO 4406:99 Cleanliness Code
- Standard Base Cleanliness Target
- Equipment Life Expectancy Extension Factor
- Comparing Clean and New Oil
- NAS 1638 Table
- Case on Which Component has a Problem



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Continuation LUB Day 2

Module 8: Level 2: Test for Oil's Physical and Chemical Properties

- Purpose of Level 2 Oil Analysis Test
- Test for Oil Kinematic Viscosity
- Noack Volatility Tests
- What is the Best Oil for Car and Motorcycle
- TAN/TBN
- FTIR/RPVOT

Module 9: Level 3: Test for Wear Metal Debris Analysis Tests

- Tests for Wear Metal Analysis
- Different Oil Analysis Elements
- Wear Metal Limits for Equipment
- What Oil Analysis Tests will Detect
- Recommended Oil Tests Sequence

Module 10 : How To Start A Lubrication Strategy in Your Plant

Workshop on Lubrication Strategy
Take Post Quiz on Lubrication Strategy
Awarding of Certificates
Closing Remarks



Lubrication Strategy June 2012, South Africa

More Testimonies About Lubrication

Detailed and systematic explanation on the importance and strategies. Exposure to different oil analysis tests and equipment used for the process. Exposure to terminologies in lubrication. Excellent presentation, detailed explanation and lively. **From Rajesh B.K. Sr. Engineer**

Reduction of equipment breakdown by proper filtration of lube oil and control techniques. Analysis of lube oil sample from equipment to predict its failure. The base oil of all the grades of lube oil is the same only after adding additives does its grade changes. If we can remove the soot from the engine oil, the properties of oil will be as good as new oil and no need for an oil change. **From K.B. Gopu, Maintenance**

Good exposure to lube oil. Exposure to breakdown of machine due to lube oil parameter. Exposure to different kinds of lube oil filters. **From Sujoy Barman, Management Trainee**

More learning's gained during the program. Well participated throughout the program. Very reliable speaker. Has a very good knowledge and background on the topic. **From Gil Martin Guape, Area Manager, Converter Furnace**

All topics discussed. Mastery and knowledge of speaker about the topics. Presentation materials and medium both audio and video were good. Speaker's humor and articulation in conducting the seminar and good process in conducting the session. **From Frank Espanol, Senior Manager, Plant Services Department**

The facilitator put us at ease to start with. He kept the whole training fun and interesting by injecting video clips and jokes. The training was outlined well. This made it easy for us to understand the topics. Industry practices were also discussed during the training and I find this very useful. **From Mon Philip Macalua, Area Manager, Smelter, Maintenance,**



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More Testimonies About Lubrication

- Know the importance of oil and how oil is being contaminated as well as the causes of oil depletion. Learned how oil can be filtered out to prolong the life of the equipment. *From Germil Datinguino, Operations, DMCI Calapan*
- The topic is very useful to my current job and it will guide us to correct practices in maintaining iur equipment. *From Tomas Venzon Jr., Plant Electrician, DMCI Calapan*
- Learned the importance of lubrication, how lubrication should be applied, when lubrication should be changed and also learned the proper way for storing lubricating oil. *From Laufrice Villamor, Plant Operator, DMCI Calapan*
- Good points about this training is that it will help us to know the proper lubrication and how to eliminate contamination. We now know the proper amount, quantity and frequency of greasing. *From Paul John Gado, Plant Mechanic, DMCI Calapan*
- Best practices and strategies in lubrication were shown and thoroughly explained by Mr. Rally. He cited examples, past experiences that we can implement in our plant. *From Kristoffer John Ramos, Maintenance Superintendent, DMCI Calapan*
- The topic is very informative and gave us a lot of insights on how lubrication affects the equipment and what are the ways in which we can prolong the life of the oil and the equipment. *From Gregorio Lanuza, Plant Operator, DMCI Calapan*
- Several strategies on lubrication were presented. Practical tips were taught. Theory and actual practices were discussed and can be also applied outside the plant set-up. *From Ronaldi Brotonel, Planner, DMCI Calapan*
- Learned basic knowledge on lubrication and having the right lubricant for the equipment. Oil contamination awareness, lubrication strategy benefits and economical benefits of proper lubrication. *From Rupert Quindong, Control Operator, DMCI Calapan*
- Very helpful in day to day maintenance and also discussed on proactive and predictive approach for oil analysis of equipment. *From Sunil Kumar, Manager, Coal Handling Plant, India*
- Discuss the basics of oil and grease. Formula regarding bearing lubrication and quantity and schedule of greasing. Oil Analysis methods, types of contamination and types of filters classification. *From Vikesh Singh, Maruti, India*
- By this training, we came to know about how to strategize World Class Lubrication procedures to be followed in our organization to save more money and to minimize consumption of lubricants and equipment downtime. *From Amit Pathana, Senior Engineer, Sholl Cement, India*
- The program covered all the points related to the topic and explained in detail even the basic concept. *From Deepak Tuvari, Manager, IGL, India*
- The program covered all major points. Globally best practices and practical approach. *From Aviral Rajeev, Manager, IGL, India*
- Very useful guidelines learnt from the training. By knowing the importance of oil, we need to improve the methods of oil handling in our industry. We learnt about the factors for oil contamination and result if oil contamination in the equipment. I learnt to improve the quality of oil used in industries and equipment and how we can save costs in lube oil. Very good lecturer by Mr. Rolly Angeles. *From Veenil Kumar, Engineer, Chemical Plant, India*



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More Testimonies About Lubrication

- Covered each and every topic. Lecture was very good and valuable. Very detailed and elaborated. Very much knowledgeable and entertaining as well. It is the first time I have attended this type of valuable lectures. *From Abhishek Agrawal, Engineer, NFL Company, India*
- Basic knowledge on lubrication including oil, grease and analysis. Strategy of oil analysis and improving oil sampling. As basic knowledge of oil and grease, lubrication and testing analysis parameters were taught and we have learned. Learnt about oil contamination and analysis parameters which will help us to use the strategies and we can implement those specific training in our plant. *From R. Devan, Deputy Manager, Maintenance Machine Shop, India*
- Practical steps regarding contamination control were taught which I like. 360 degrees view on handling lubricants and making lubrication strategy for your company. *From Vikas Sardana, Head, Reliance, India*
- Covers overall maintenance strategies with respect to lubrication. Understand lubrication, contamination and other lubrication related maintenance. Do's and don'ts on oil and prevention of Oil Contamination. *From Shiv Yadav, India*
- Excellent inputs on lubrication strategies. Detailed coverage on lubrication basics, grease basics, application section, contamination control and oil analysis. Practical good discussion on practical problems. Inputs on various levels of oil analysis program and its importance. *From Rajiv Deshmukh, Vice President, Engineering Aditya Birla, India*
- Good technical and practical knowledge. Good explanation skills. Excellent presentation skills. *From Bhushun Purekh, Mechanical Maintenance, India*
- Good information about Oil Analysis. Ways to contain Oil Contamination and oil storage ways for new oil. *From Anish Nair, Deputy Manager, India*
- Training program conducted by the trainer was excellent. There are lots of points which covered it can improve my skills related to lubrication which includes oil and grease and other oils. He was trying to deliver all points which he will add in the presentation slide. Nice nature and way to attract all to listen with him. *From Shriv Pajay, Engineering Mechanical Processing Plant, India*
- This is a very good training to me as an employee to increase my knowledge and to properly fulfill my duties and responsibilities. *From Rodolfo Solomon, Plant Mechanic, DMCI Palawan*
- The importance of this training is to understand the basic knowledge on proper lubrication and contamination control and also understand how to transition on changing oil from running hours to Condition-Based through Oil Analysis. *From Froilan Esmenda, Plant Mechanic, DMCI Palawan*
- Deeper understanding about lubrication on how to apply lubricant, proper handling of lubes. How to select the right lubricant for our equipment. It gives us more knowledge and enlighten us on how and why right lubrication is needed and important. It also give and help us gain knowledge on how to reduce costs on our maintenance activities and program. It will be a great help not only for us maintenance personnel and equipment but also for the company. *From Clifford Pampo, Planner, DMCI Palawan*
- The importance of Oil Contamination Control and all the topics is very useful to us to know and to have a knowledge about the topic and to share all my learning's to my co-employees on the use of lubrication oil and grease. *From Daniel Butay, Shift Supervisor, DMCI Palawan*



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Training Investment Costs:

- The cost of this Lubrication training is @ 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.

