relogica

3 days training course

MEMBER OF

Aladon The Risk & Reliability

INTRODUCTION TO RCM

66 ARE YOU DOING THE RIGHT MAINTENANCE ?

There is no point in doing the job right, unless you are **99** doing the right job!

Overview RCM IITM INTRODUCTORY 3 DAYS COURSE

Over the past 50 years, industry around the world has spent billions of dollar for recruiting, training, and paying the people who do maintenance work. Billions have also been spent on maintenance spares and tools, from spanners and screwdrivers to sophisticated condition monitoring systems and Computerized Maintenance Management System.

However, it is now emerging that although they may be done exactly as planned, a great many maintenance tasks achieve nothing, while some are actively counterproductive and may be even dangerous. This is especially true of many tasks done in the name of preventive maintenance. On the other hand, many more maintenance tasks that are essential to the safe operation of modern, complex industrial systems are not even featured in the associated maintenance planning systems. In other words, industry in general is devoting a great deal of attention to doing maintenance work correctly (doing the job right), but much more remains to be done to ensure that these jobs that we are planning are indeed the jobs that we should be planning (doing the right job).

The first industry to confront this issue systematically was international civil aviation. On the basis of research that challenges many of the most firmly and widely-held beliefs about maintenance, this industry developed a comprehensive framework for developing maintenance strategies. This framework is known within aviation as MSG3, and outside it is known as Reliability Centered Maintenance (RCM).



RCM II

Perfecting the RCM framework, RCM II is the modern derivation and the most comprehensive of RCM methodology available which was developed by the late John Moubray and his Aladon Network. Currently the Aladon Network has grown stronger and have become dedicated to continuing his legacy in continuously refining the RCM methodology.

RCM II is an employee involvement process which can enhance maintenance and operation group cooperation. It enables you to get more out of your physical assets in terms of Equipment Reliability, Product Quality, Customer Service, Safety, Environmental Protection and Training; while you put less in, in terms of Predictive Maintenance, Preventive Maintenance and Corrective Maintenance.

RCM II fully complies with the SAE Standard JA1011. Due to the growing popularity of RCM, many processes have emerged bearing the name "RCM", but in fact bear little or no resemblance to the highly structured and rigorous process originally developed by the commercial aviation industry. This led a group of leading edge users of true RCM, working under the auspices of the SAE, to develop a standard that defines criteria to be used to decide whether or not any process that claims to be RCM is in fact RCM. This standard is known as: SAE JA1011, "Evaluation Criteria for Reliability-centered Maintenance Processes". If you wish to obtain a copy of the standard, please visit the SAE's website at www.sae.org

Aladon The Risk Reliability GLOBAL NETWORK

RCM has long been recognized as the fundamental element for improving reliability, have your key resources learnt and understood the principles of RCM correctly?

Relogica is a member of the Aladon Network – a global a network of Reliability experts certified in the leading application of Reliability Centered Maintenance. The network has trained more than 60,000 people and helping companies apply RCM II on more than 2000 sites, in over 80 countries, and in almost every industrial sector in the last eighteen years. In Indonesia, relogica have assisted clients in the application of RCM II in various industry such as power generation, mining, petrochemical, upstream oil & gas and mineral processing.

As part of our ongoing commitment to deliver to our clients World Class Maintenance Methodologies, we regularly conduct public RCM II introductory training in Indonesia. We have trained more than 1500 maintenance professional in the principle of RCM II for more than 15 years. For more information on our courses, please visit our website at: www.relogica.com

WHY DO YOU NEED TO UNDERSTAND RCM CORRECTLY ?

Reliability Centered Maintenance (or RCM) is a methodology developed specifically to guide organizations in various industries in improving the reliability of their physical assets. Global benchmark studies have shown that RCM is indeed one of the fundamental characteristics consistently found in all top performing organizations. Hence, It is an accepted truth that organizations wishing to successfully embark on a reliability improvement journey must first of all ensure their correct understanding of this fundamental element. Without it, the reliability initiative is doomed to failure.

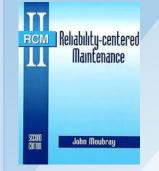
OUR WORLD STANDARD RCM COURSE

What better way to truly understand RCM than to learn in the very course developed by the world renowned RCM guru John Moubray, whom under the guidance of Stanley Nowlan, (the creator of the RCM methodology) has authored the world's best selling RCM book to date. Utilizing global standard course format, content and materials which all have undergone a 25 years period of continuous refinement, this course teach RCM to the participants the way the author intended it to be taught. Blending the right amount between lectures and practical simulation using real life case studies and delivered by qualified and internationally certified RCM instructors, this course ensure effective understanding of the participants on how the methodology really works.



LEARN FROM THE BEST RCM TRAINING COURSE

There are other RCM training courses, but to ensure understanding..



- The ORIGINAL course developed by the late John Moubray, author of the best selling book "RCM II"
- Global Standard Course format, content, and material. Deployed uniformly throughout the world
- The course has been continually perfected for over 25 years by Aladon global network of Reliability Practitioners
- Provided to more than 60,000 people in over 80 countries in almost every industrial sector
- Delivered by internationally certified RCM practitioners who were trained directly by John Moubray and have extensive teaching and implementation experiences.

For Further Information :

For detailed information about RCM or the best RCM course available, please visit **www.relogica.com** and download our RCM II Introductory Course registration form. Alternatively, you can also send email to **courses@relogica.com** or simply contact the number on the right to let us know. We will be happy to send you our course registration form.



PT Relogica Indonesia Alamanda Tower, 28th Floor, Unit F Jl. TB Simatupang Kav. 23-24, Cilandak Barat, Jakarta Tel. +62 21 2966 0250 Fax. +62 21 2966 0150 Email : admin@relogica.com Web : www.relogica.com

Algeria Angola Antigua & Barbuda Argentina Australia Australia Australia Bahrain Belgium Belize Bermuda Bolivia Brazil Brunei Canada Chile Colombia Costa Rica Demark Dominica East Timor Ecuador El Salvador Finland France Germany Genedad Guadeloupe Guatemala Haiti Hondurss Hong Kong Iceland Italy Indonesia Jamaica Kuwait Litya Luxemburg Macau Malaysia Martínique Mexico Mozamolgue New Guinea New Zealand Nicaragua Northem Ireland Norway Oman Panama Panya Paraguay Peoples Republic of China Peru Portugal Pueto Rico Qatar Republic of Ireland Republic of South Africa Russia Saudi Arabia Singapore Spain St. Kitts Nevis St. Lucia St. Vincent Sweden Switzerland Taiwan Thailand The Bahamas The Cayman Islands The Dominican Republic The Netherlands The Philippines The Virgin Islands Timidad & Tobago United Arab Emirates United Kingdom of Great Britain United States of America Urugay Venezuela



INTRODUCTION TO **RCM COURSE**

Understand How to Develop The RIGHT Maintenance Tasks

COURSE CONTENT

Defining the Problem and Gathering Basic Information

- Defining the functions of an asset and why it need to be identified
- Defining the ways in which assets can fail to deliver the desired performance (Functional Failures)
- Establishing root causes of failure (Failure Modes) and what happens when failures occur • (Failure Effects)

Assessing Failure Consequences

- Understanding the hidden consequences of a failure 2 Failures that threaten safety or the • environment
- Failures that effect production or operations
- Failures that only entail the direct cost of repair

Assessing the validity of different types of failure prevention and setting task frequencies

- On condition maintenance (including condition monitoring and predictive maintenance)
- Scheduled restoration tasks
- Scheduled discard tasks
- Failure Finding tasks

BENEFIT FROM THE COURSE

Attending the RCM II course is an excellent way to learn what RCM II is, how it works in practice (extensive use is made of practical exercises and case studies throughout the course), and how to properly understand and evaluate RCM II for potential implementation within your organization. At the RCM II introductory courses you will:

- learn what Reliability-Centered Maintenance is and how it works,
- gain an understanding of what RCM II achieves and how to achieve it
- gain an appreciation of the resources needed to apply RCM II successfully and
- gain an understanding of how to implement the results and measure the benefits

WHO SHOULD ATTEND

Anyone who has responsibility for:

- Maintenance (managers, superintendents, engineers, planners);
- Asset operations (production, operations management);
- Plant Safety & Environmental officers;
- Product quality or customer service; or
- Anyone with an interest in improving physical asset integrity and performance

COURSE MATERIAL

Each participant will receive:

- The "Reliability-centered Maintenance II" textbook by John Moubray
- Aladon Network course folder
- Exercises (Including a case study), and
- Other supplementary materials

INSTRUCTOR

The course will be taught by one of our internationally certified RCM practitioners who have gone through extensive certification program and experiences in various industries including oil & gas, power generation, petrochemicals, chemical process, mining, and mineral processing. Our instructors are :

Roy Korompis CMRP 1.

Is an Industrial Engineer with master degree in engineering management. He is also a Certified Maintenance & Reliability Professional who has over 20 years of consulting experience supporting clients in improving their performance in Indonesia, Asia, Africa, and Middle East.

2. Agus Setyo Wardoyo

Is a Mechanical Engineer with over 10 years of combined working experience in the field of maintenance and reliability and also as consultant working in various project in Indonesia.

Derris Surva 3.

Is a Mechanical Engineer with 5 years of combined working experience in the industry and as management consultant, mainly in supporting clients to improve their maintenance & reliability function/department.







Algeria Angola Antigua & Barbuda Argentina Australia Australia Bahrain Belgium Belize Bermuda Bolivia Brazil Brunei Canada Chile Colombia Costa Rica



Denmark Dominica East Timor Ecuador El Salvador Finland France Germany Grenada Guadeloupe Guatemala Haiti Honduras Hong Kong Iceland Italy Indonesia Jamaica Kuwait Libya Luxemburg Macau Malaysia Martinique Mexico Mozambique New Guinea New Zealand Nicaragua Northern Ireland Norway Oman Panama Papua Paraguay Peoples Republic of China Peru Portugal Puerto Rico Qatar Republic of Ireland Republic of South Africa Russia Saudi Arabia Singapore Spain St. Kitts Nevis St. Lucia St. Vincent Sweden Switzerland Taiwan Thailand The Bahamas The Cayman Islands The Dominican Republic The Netherlands The Philippines The Virgin Islands Trinidad & Tobago United Arab Emirates United Kingdom of Great Britain United States of America Uruguay Venezuela

