

7th Run in Asia based on popular demand!

Extended to 3 days based on comments from delegates on previous workshops in Asia

OPTIMZING MAINTENANCE SPARES INVENTORIES

18th – 20th January 2016 – Kuala Lumpur, Malaysia

Use Successful methods and analysis techniques to effectively reduce inventory and costs of spares part.

Comments from past participants:

"This program meet with our job requirement and objective." PT Badak NGL (Indonesia)

"Very good workshop with experienced trainer." VICO (Indonesia)

"These programmes enable us to learn more details on Spares inventories" PETRONAS GAS BERHAD (Malaysia)

"Good example of spares management, concepts and techniques used for optimization of spares" $\,$

SHELL CHEMICAL SERAYA (Singapore)

"Good course "
MUBADALA PETROLEUM, (Thailand)

"We found that our stock control was very poor and we have adopted different strategies depending on cost and usage."

Middle East Gas Producer

"We didn't realise we were significantly overstocking until we applied the techniques we learnt on your course."

Major Beverage Producer

"The content are helpful and can be applied to the works for the improvement on inventory and $\mbox{cost}^{\prime\prime}$

Binh Son Refining (Vietnam)

"Thank you, the man with full of experience."
BOB PT BUMI (Indonesia)

"The training is very good" PT CABOT (Indonesia)

"Interesting topic, especially for people $\,$ who work for material planning" $\,$ TOTAL E&P $\,$ (Indonesia)

"Facilitator is knowledgeable on this subject "
Sarawak Shell Berhad, (Malaysia)

"We didn't know there was any science in setting reorder levels, we have always used guess work, we feel we have an important role in the company asset management programme."

"This course is useful for our Inventory Management" Nghi Son Refining (Vietnam)

Previous clients attended:

KPOC, HESS INDONESIA, STAR ENERGY, VICO INDONESIA, NIPPON, TNB, BRUNEI LNG, SARAWAK ENERGY, CARIGALI-PTTEPI, SHELL CHEMIAL SERAYA, GLOW ENERGY, MURPHY SARAWAK, CARIGALI HESS, PETRONAS GAS, STAR PETROLEUM, PTTEP SIAM, VINYTHAI, THAIOIL, MUDABALA PETROLEUM, PTT LNG, SIAM YAMATO STEEL, PTT E&P, PETROFAC, SARAWAK SHELL BERHAD, PT BADAK NGL, TALISMAN, HESS INDONESIA, TRANS-THAI MALAYSIA, BINH SON REFINING AND PETROCHEMICAL, TOTAL E&P, SINGAPORE REFINING COMPANY, PT CABOT, SWIRE PACIFIC OFFSHORE, UMW Offshore Drilling, MAERSK, MODEC, SAPAURA KENCANA and SHELL.















Program Overview

Many companies do a bad job at managing their inventory effectively; there are many reasons for this. But it starts with bad submission of SPIRs, cataloguing and selecting initial spares.

This practical 3 days' workshop covers every aspects related to reducing inventory and costs of spares parts and is supported by case studies, software and practical exercise to aid understanding.

Two analysis techniques will be covered; using probability for slow and fast moving spares, and stimulation for high value spares with logistic issues. We will cover optimizing spares for new facilities as well as how to evaluate existing inventory systems and KPIs for evaluating performance.

With this course delegates will leave the workshop with tools and techniques they can immediately apply in their own companies.

Delegates are advice to bring laptop and a sample of spares parts to analyze. Instructions will be provided for this.

This course has been extended to 3 days based on comments from delegates on previous workshops in Asia - this will provide additional exercise using the optimization techniques in addition to include how to conduct improved CMMS spares cataloguing.

Attend this course to Master:

- ESTABLISH the right inventory policy for fast and slow moving parts and high value long lead time spares.
- GOOD practices related SPIR forms.
- UNDERSTAND how to estimate initial stock.
- SELECT safety stocks scientifically.
- DETERMINE how to set reorder levels and order quantities for optimum cost.
- IDENTIFY what are the strategies to minimize stock.
- JUSTIFY the financial case for high value spares and what are the risk of not stocking and how many should we stock.
- IMPROVING your cataloguing process.
- LEARN how to measure inventory performance.
- EXPLORE and apply what can be done with in-house and what can be done with specialist software.

PRACTICAL INVOLVEMENT:



TAKE AWAY MATERIAL *An innovative Revised SPIR sheet to aid in setting Inventory Management system will be used to analyze your own spares parts.

Lap top is required.

This program is intended

The Course is designed to:

- Managers
- Purchasing
- Planners
- Materials
- Project and Design Engineers who have an interest in how to minimize risk and costs of spare part inventories.
- Engineers responsible for specifying, buying spares and setting up the spares information in the CMMS.
- Anyone who want to reduce Maintenance OpEx.

<u>Previous Attended Job-titles:</u> Inventory Management, Maintenance Department, warehouse, Maintenance mechanical, Inspection & Data Management, Production, Material, Instrument & Control, Maintenance & Reliability, Buyer, Planner, Store

OPTIMZING MAINTENANCE SPARES INVENTORIES

Introduction to stock Optimization

- Delegates Issues (Group Session)
- Common problems in inventory management
- The Stock management business process
- Terms and definition used in the workshop.

Class, Type and strategies and CMMS Part Set

- Classifying the type of spares based on usage, costs, annual issue costs, etc
- Analyzing lead time
- Different strategies, min-max, re-order point, vendor controlled supply
- Exercise ABC Analysis

When to order (Setting of Re-Order Points, safety stocks)

- Using the Poisson distribution to set re-order points based on lead time, annual usage and criticality and the typical issue quantity.
- Alternative strategies including Constant Vendor Delivery
- Exercise- setting reorder levels and lead time estimates

How many to order?

- How to determine the quantity the order. The effects of ordering too many or too few.
- How to evaluate if discount for quantity are worthwhile.
- Exercises

Effective SPIRs and Cataloguing

 SPIRs, their purpose and why they are submitted incorrectly, Effective spares cataloguing to ensure zero duplicates, (Ease of searching, setting rules and strategies and developing component type guides, Abbreviations)

Spares costs

- Different costs used in the stock management process, Eg; Buying, holding, item cost, issue cost, penalty cost, average costs.
- What happens to transport and customs costs

Establish Optimum spares parameters for new equipment

- Using Failures rates, populations, lead times
- Exercise- estimating annual usage

Evaluate the effectiveness of current stock policies

- Evaluate service level; compare existing with those parameters in the CMMS inventory Management system.
- How to calculate KPIs such as Turnover Ratios, Issue Rates, Annual Issue value, stock holding value.

If you download a sample from your CMMS system you will analyze this data during the class using a MS Excel – Lap top required.

Introduction to failures statistics

- Normal & Poisson distribution, Weibull parameters for high value spares,
- Explanation of spares service levels based on criticality and annual demand
- · How to estimate annual usage, sources of reliability data,
- Exercise

How to evaluate high value, Insurance and strategic Spares

- Considering planned purchase and emergency purchase, holding costs and costs of lost production. If you bring an
- example from your organization we will analyze as part of the workshop
- Auditing work process for managing spares
- How to audit work processes.

Should we stock?

Criteria that effects the decision to stock, criticality lead times,

End of training course.



PETRO1 provides Oil & Gas Trainings & Consultancy services ranging from Petroleum Engineering, Exploration & Production, Subsurface and business related activities in the oil & gas industry. We had successfully made impact to petroleum professional mainly the Top 50 Oil & gas players in the Asia Pacific Region.

- Total E&P
- Petronas
- Murphy Oil
- JX Nippon
- Scomi Oil
- Hess
- Saipem
- Clough
- Mubadala Petroleum
- Bureau Veritas
- Pertamina
- Peritus international

- Petrofac
- Keppel Corporation
- Singapore refining Company
- Salamander Energy
- Binh Son Refining Vietnam
- PTT Global Chemical
- NewfieldAtkins Australasia
- Brunei Methanol
- Curtin univeristy
- Technip
- Premier Oil

- SGS
- PTT EP
- Halliburton
- Brunei LNG
- Shell Chemical
- Worley ParsonChina university of particle
- China university of petroleum Beijing
- Thaioil
- Aker Solutions
- Star Petroleum
- Jurong Shipyard

Principal Program Facilitator



David Thompson, RAMsoft UK - MAINTENANCE RELIABILITY CONSULTANT

David extensive experience covers all aspects in Maintenance, Reliability and Operation management. His area of strength covers specifically in maintenance management audit reports, RCA, Shutdown planning and failure code systems, CMMS, KPIs, Spares Optimization, RCM, and RAM Modelling

For the past 40 years, David had been actively involved in:

- Conducted over 400 audits including fast track audits, in-depth audits and distance audits in maintenance management
- Currently working for Worley Parsons in UK writing document for a number of FEED projects worldwide.
- Interest in helping companies collect better data and to try and make reliability of interest to the regular maintenance engineer by concentrating on applications rather than complex mathematical theory.
- Developed Policy and procedures documents for a number of Oil & Gas Companies.
- Wrote standard and guidelines on many topics on maintainability, RCA, work packs, Shutdown planning and failure code systems.
- Wrote over 400 audits reports covering excellence in Maintenance management and in specialist topics spares, CMMS, KPIs and Reliability Management system.
- Presented Papers at several Maintenance & Reliability Symposiums in Europe, Malaysia and Brazil.
- Online distant learning instructor for Robert Gordon University in Assets integrity and Reliability Management.
- Undertaking a major CMMS data Cleansing Project as part of a CMMS upgrading.

Symposiums

- European & world Maintenance Congress 2007
- Applied Reliability Symposiums Europe 2009, Brazil 2008, Asia 2006,200, 2010.
- Presented paper at the Applied Reliability Symposium Singapore 2013 (4th Year)

David has worked for many blue chip companies either directly or through a consulting role.

David,s International Clients:

Nippon Oil, Talisman, Petrofac, State Oil Dubai Petroleum, Novartis, EGGBOROUGH POWER STATIONS, Chinese Oil & Gas company, worley parsons, sabic, Qatar petroleum, Scottish power, wood group, shell Nigeria, Hunstsman, ENI oil, Saudi Aramco and SONANDOL P&P

David has conducted many audits of maintenance practices and CMMS use spanning the last 20 years. David has a particular interest in helping companies collect better data and to try and make reliability of interest to the regular maintenance engineer by concentrating on applications rather than complex mathematical theory.

David is a certified instructor in RCA, and Reliability Methods and Techniques. David has developed and delivered training programs world-wide including both offshore and onshore facilities topics include Maximo CMMS, RCM, FMECA, Weibull Analysis, RAM Modelling, Reliability Growth, Analysis, and Fault Tree Analysis, Incident / Root Cause Analysis, work planning and control, spares optimisation. In addition David has conducted training in many other maintenance management topics

Early days

David initially started in the steel making and mining sectors and for the past 15 years in the oil & gas sector. David was the UK partner for Reliasoft one of the world's leading reliability engineering companies, and is currently part of a team to implement improved Asset Reliability in the Middle East, including RAM and RCM studies.

Investment Packages

Optimizing maintenance spares inventories	Early Bird Full 3 Days	Standard Price Full 3 Days
Per Delegate	SGD 2967 ()	SGD 3179()

REGISTER 3 AND SENT THE 4TH FREE

- Please note that all registration had to must be made
- The above price is inclusive of GST 6%.
- Early Bird Promotion Deadline 15th December 2015

Delegate Details

1. Name:		MrUMrsUMsUDrU
Job Title:		
Email :		
Contact No:		
Department:		
2.Name:		_Mr
Job Title:		
Email :		
Contact No:		
Department:	·	
3.Name:		MrMrsMsDr
Job Title:		
Email :		
Contact No:		
	Invoice Details	
Invoice Attention to	o:	
Company:		
Industry:		
Address:		
Postcode:	Country:	
Telephone:	Fax:	
Email:		
Authorized Signature : _		

REGISTRATION FORM

PROGRAM DETAILS

Venue: Kuala Lumpur, Malaysia Date: 18th – 20th January 2016

REGISTER NOW CONTACT: kelvin MAIN: +603 7727 3952 FAX: +603 7722 5278

Email: registration@petro1.com.my

Credit card Payment		
Please Debit my credit card:		
☐ VISA ☐ MASTERCARD		
Card Number:		
Security Code: Expiry Date:		
Named printed on card:		
Signature:		

Payment Method

By cheque/ Bank Draft: Made Payable to PETRO1 SDN BHD By Direct Transfer: Please quote invoice numbers on remittance advice.

ACCOUNT NAME : PETRO1 SDN BHD BANK : HSBC Amanah Malaysia Berhad ACCOUNT NO : 054 - 048061 - 701 (SGD)

SWIFT CODE: HMABMYKL

All bank charges to be borne by payers. Please ensure that PETRO1 SDN BHD received the full invoice amount.

* Credit card payment will include a charges 2.8%

<u>Payment Policy</u>: Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Payment is required with registration and must be received prior to the event to guarantee the seat. Payment has to be received 7 working days prior to the event date to confirm registration.

Venue: All of our training courses are held in 4 – 5 star venues.

The course fee does not include accommodation or travel cost. It's recommended to book the hotel room early as there are only limited room available at the discounted corporate rate.

DATA PROTECTION

The information you provide will be safeguarded by Petro1 that may be used to keep you informed of relevant products and services. We take it seriously when it comes to protection of our client data.

Cancellation & Substitutions: Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Should you be unable to attend, substitutes are always welcome at no additional cost. Please inform us as early as possible. Payment is non-refundable if cancellation occurs 7 working days prior to event commencement. However a substitute is welcome at no additional charges. If cancellation occurs 5 working days prior to the registration date and there is no substitute, the organizer reserves the right to charge 50% of the total investment from your organization.

PETRO1 SDN BHD is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. PETRO1 SDN BHD shall assume no liability whatsoever in the event this training course is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, war, fire, labor strike, extreme weather or other emergency.

<u>Walk in Registration</u>: Walk-in participants with payment will only be admitted on the basis of seat availability at the event and with immediate full payment.

<u>Program Change policy</u>: The organizer reserves the right to make any amendments and/or changes to the workshop, venue, facilitator replacements and/or modules if warranted by circumstances beyond its control.