

Effective Spares Parts Management

Apply techniques learned immediately in the workplace and start to reduce cost.

Initial planning, procurement, cataloguing & inventory reduction

28th March – 1st April 2016 – Bangkok, Thailand

Topic 1 – Initial spares part planning & procurement (2 Days)

Topic 2 – Optimizing Maintenance spares inventories – Using a 16 point of action. (3 Days)

Previous clients attended:

KPOC , HESS INDONESIA, STAR ENERGY, VICO INDONESIA, NIPPON , TNB , BRUNEI LNG , SARAWAK ENERGY , CARIGALI-PTTEPI , SHELL CHEMICAL SERAYA , GLOW ENERGY , MURPHY SARAWAK ,CARIGALI HESS , PETRONAS GAS ,STAR PETROLEUM, PTTEP SIAM , VINYTHAI , THAI OIL , MUDABALA PETROLEUM , PTT LNG , SIAM YAMATO STEEL, PTT E&P , PETROFAC , SARAWAK SHELL BERHAD , PT BADAQ 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

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http://www.ptit.org
Gateway to Thailand Petroleum and Petrochemicals

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Vi cộng đồng phát triển



OilVoice

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 cost”
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”
Nghì Son Refining (Vietnam)



Effective Spares part Management (5 Days)

<p>Initial spares part planning & procurement (28th – 29th March 2016)</p>	<p>How to improve the effectiveness of the initial spares planning process for new equipment, the benefits more costs effective purchasing of initial spares to minimize costs and the number of items purchased. The covers the process from initial specification through to handover to the operations phase of the life cycle.</p>
<p>Optimizing Maintenance spares inventories – Using a 16 point of action (30th March – 1st April 2016)</p>	<p>Use Successful methods and analysis techniques to effectively reduce inventory and costs of spares part.</p>

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Initials spare parts planning & procurement (2 Days)

Program Overview

This 2 day workshop is new and focus on the important activity of purchasing spares during the project phase. The workshop will provide the delegates with best practices and processes related to the planning and procurement of initial spares. This activity is usually done badly, resulting in duplication of stock, poor cataloguing, under or over stocking and poor ordering rationalisation.

Initial spares planning starts in the design phase with equipment specifications and the request for recommended spares parts list, until the items are handed-over to the warehouse and the items set-up in the CMMS. ISO55000 stipulates we have to demonstrate that all assets are effectively managed from cradle to grave, then initial spares planning and procurement process is an important element of the asset management process.

The course will focus:

- Will look more at responsibilities of who does what and the timing, who buys the customer or the EPC contractor and this will cover commissioning & start up spares, 2 year spares and insurance spares.
- Achieving rationalisation in the initial spares phase by creating a master RSPL & Spares list, e.g. rather than purchase spares RSPL by RSPL we need to leverage grouping common items.
- The need to build into the design phase standardization.

Attend this course to Master:

- What is required under ISO55000 to manage the initial spares procurement process
- Why existing RSPL/SPIR forms are ineffective
- How to rationalize initial spares procurement using MS Access
- How to challenge vendors spares recommendation and specify inventory parameters
- The importance of assigning a spares criticality
- How to select stocking strategies to minimize stock holding
- How to justify the financial case for high value spares
- KPIs to measure inventory performance

Unique features of this training:

Having the ability to implement directly once you are back at your workplace is crucial for every participant. During the 2 days training, practical involvement and exercises will be share.

- Discuss delegate's issues with the initial spares process.
- Develop a process map (using post-Its) to cover specification, RSPLs, purchase, receiving, preservation, handover.
- Building a list of standard components.

This program is intended

This training course is designed for:

- Maintenance Managers, Engineers,
- CMMS super users
- Warehouse Managers & Supervisors
- Project Engineers
- Spares & Inventory Personnel
- Purchasing & Logistics

Previous Attended Job-titles: Engineering executive, Material Analyst, Material & Inventory Management, Project Delivery, Maintenance planners.

Topic 1 Common Issues with the Initial Spares

Delegates state their issues in this process

Common issues found in the process and industrial sectors, e.g. as lack of effective procedures, poor specifications, purchasing duplicates,

The above will be supported by examples/case studies

Discussion on stocking objectives

Topic 2 Initial Spares Planning & Procurement Process

Review of the spares planning & procurement process.

Delegates should understand their company's process so that areas of opportunity can be identified

Group exercise develop a process map (using post-Its) to cover specification, RSPLs, purchase, receiving, preservation, handover

Documents required to support the Strategic Asset Management Plan for initial spares

Topic 3 Effective Recommended Spare Parts List (RSPL) from Vendors

SPIRs, their purpose and why they are submitted incorrectly, principles good spares cataloguing to ensure zero duplicates, and ease of searching

A critical review of a typical RSPL form known as a SPIR (Spare Parts Interchangeability Record and associated procedures sent to vendor's

Examples of good and bad RSPL/SPIR

Proposed improved format for the electronic RSPL/SPIR

Topic 4 Building the spares information Database (Spares Set Up)

Information required in the spares data required in the pre-operations phase, spares categories, spares class and sub class, BOM, lead times, part descriptions, buying descriptions, Criticality, etc.

Different spares replenishment strategies (ROP, DIR, CVD, Min-Max and when to select.)

Examples of supporting documents

Whether to use Excel or MS Access database solutions

CMMS Data migration process

Topic 5 Building the SPIR Build & Tracking Tool

How MS Access can provide a useful tool to support the SPIR process

Database structure

Importing data

Identifying duplicates

Updating installed populations

Exporting to the CMMS for purchasing

Topic 6	Deciding Whether to Stock
	Factors in deciding whether to stock
	Alternative spares
	Company's maintenance strategy
	Capital spares
Topic 7	How to Challenge Vendors Recommended Quantities
	Introduction to reliability principles
	How to estimate annual demand rates from populations or generic data sources
Topic 8	Converting Annual Demand Rates to Inventory Control Parameters
	How to use the estimated data to establish the CMMS parameters, e.g. ROP, Order Quantities, Max, Replenishment Strategies
	Bulk analysis in Excel
Topic 9	Completing the CMMS Spares Build
	Spares class and type codes
	Spares attributes & purchase descriptions
	ABC classification
	Unit costs
Topic 10	Insurance Spares & Their Evaluation
	Definition of the insurance spares
	What is required to support the decision whether to purchase or not
	Introduction to RAM Software



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

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Optimizing Maintenance Spares Inventories – Using a 16 point of action

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 newly structure 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. [The techniques allow you to immediately apply them in the workplace and start to reduce cost.](#)

Initial spares planning and procurement and detailed cataloguing is covered in a separate 2 day workshop. This workshop focuses on reducing the inventory. This is an area often overlooked.

An Excel Analysis worksheet containing all formulae will be provided to conduct an audit of current inventory parameters. With this participants can then return to their workplace and conduct such an audit and highlight spares where the current ROPs are too high or too low or buying costs are too high or too low.

Two analysis techniques will be covered; first using probability for normal operating and consumable spares and the second using simulation (modelling) techniques for high value spares with logistic issues. New topic focusing on inventory management auditing will provide delegates to learn about types of audits and to conduct an inventory management audit so the delegates can evaluate what they have in place with respect to best practices.

Delegates are advice to bring laptop and a sample of spares parts to analyze. Instructions will be provided for this. This course has been newly structure design to focus more to reduce stock levels, spares costs and stocking costs - 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:

- ISO55000 and what it means for inventory management
- How to audit inventory management processes
- The different costs associated with spares management
- Learn techniques to improve reliability resulting in less spares usage
- How to select the right inventory policy for fast and slow moving parts
- Good practices related to SPIR forms
- How to evaluate safety stocks scientifically
- How to determine how many to buy
- Learn strategies to minimize stock
- How to justify the financial case for high value spares
- How to measure inventory performance
- What can be done in-house and what can be done with specialist software

PRACTICAL INVOLVEMENT:

Delegates will learn about types of audits and to conduct an inventory management audit so the delegates can evaluate what they have in place with respect to best practices. The audit will be a excel worksheet and provide a quantifiable score so they can compare themselves

Participant will be involved in how to audit their existing inventory management parameters using a Excel worksheet, this worksheet will be partly developed before the class which then the class will build upon the worksheet with the trainer guidance. These will provide the participants better understanding during the building process.

This program is intended

The Course is designed to:

- Managers
- Purchasing & Logistics
- 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.

Previous Attended Job-titles: Inventory Management, Maintenance Department , warehouse , Maintenance mechanical, Inspection & Data Management, Production , Material , Instrument & Control, Maintenance & Reliability , Buyer , Planner , Store controller, CMMS coordinator, Supply chain management , Plant Engineer, Equipment Analysis and Central service Manager.

OPTIMIZING MAINTENANCE SPARES INVENTORIES

- Using a 16 point action plan -

<p>Introduction to spares management</p> <ul style="list-style-type: none"> Delegates Issues Common issues in inventory management with real examples Where we incur excess costs Benefits of improved inventory management Terms and definitions used in the workshop. <p>Auditing inventory management</p> <ul style="list-style-type: none"> Scope of audits ISO55000 and Inventory Management Introduction to auditing and benchmarking Conducting an inventory practices audit 	<p>When to order (Setting of Re-Order Points, safety stocks)</p> <ul style="list-style-type: none"> 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 re-order levels <p>How many to order?</p> <ul style="list-style-type: none"> How to determine the quantity of the order The effects of ordering too many or too few, Evaluating whether discounts are worth accepting for higher quantities
<p>Inventory cost reduction programme</p> <ul style="list-style-type: none"> Introduction to a 14 step inventory reduction programme, tactics including Auditing CMMS Data Quality Applying the 80-20 rule Identifying duplicates Reduce internal lead times Standardization Different strategies, min-max, reorder point, vendor controlled supply Replace OEM <p>Spares costs</p> <ul style="list-style-type: none"> Different costs used in the stock management process, e.g. buying, holding cost, item cost, issue cost, penalty cost, average stock level costs, annual issue value 	<p>Auditing current inventory Parameters effectiveness</p> <ul style="list-style-type: none"> Evaluate service levels; compare existing with those parameters in the Inventory Management System Different KPIs such as Turnover Ratios, Issue Rates, Annual Issue Value, Stock holding value. Demonstration of an MS Access Based Application to simplify the analysis <p>Evaluate policies for insurance spares</p> <ul style="list-style-type: none"> Planned purchases and emergency purchases Holding costs and costs of lost production
<p>Introduction to reliability theory</p> <ul style="list-style-type: none"> Normal & Poisson distribution, Weibull parameters for high value spares Explanation of service levels Why is the P-F interval important How to estimate annual usage using MTBFs or reliability data sources <p>Spares Criticality</p> <ul style="list-style-type: none"> Spares criticality definitions Criticality and service levels and demand rates 	<p>Auditing business process</p> <ul style="list-style-type: none"> Reviewing procedures Planning the scope of the audit Conducting the audit Identifying the issues and corrective actions <p>KPI Reporting system</p> <ul style="list-style-type: none"> Purchasing & Inventory KPIs Performance management system

TAKE AWAY MATERIAL

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

* CMMS Inventory Parameter Auditing Tool (Excel) and of course the 16 point Action Plan to Reduce Inventory & Spares Costs.

Lap top is required.



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 , Hunstman , ENI oil , Saudi Aramco and SONANDOL P&P

David is a certified instructor in RCA and Reliability Methods and Techniques. He has developed and delivered training programs worldwide including both to offshore and onshore facilities, topics include RCM, FMECA, Weibull Analysis, RAM Modelling, Reliability Growth, Analysis, and Fault Tree Analysis, Incident /Root Cause Analysis, Work Planning and Control, Spares Optimisation & Rationalisation. Recent workshops that have been well received are Achieving CMMS Data Integrity, Implementing Asset Management Systems to support ISO55000 and Reducing OPEX costs.

David has presented papers at several Maintenance & Reliability Symposiums in Europe, Malaysia, and Brazil. He is an Online Distant Learning Instructor for the Robert Gordon University for a distance learning MSc Course in Asset Integrity and Reliability Management. David's workshops include many case studies and examples gaining from working in the Middle East, Africa, and Asia.

David has conducted many reliability studies over the past 20 years. He 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. He has worked for many blue chip companies either directly or through consultants.

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

Effective spares part Management	INSPP Full 2 Days (28 th – 29 th March)	OMSI Full 3 Days (30 th Mar – 1 st April)	2 Days + 3 Days (28 th – 1 st April) 5 Days
Standard Price	SGD 2437	SGD 2495 ()	SGD 4299 ()
Early Bird Price	SGD 1998	SGD 2295 ()	SGD 3899 ()

REGISTER 3 AND SENT THE 4TH FREE

- Please note that all registrations must be made at the same time to qualify.
- Early Bird Promotion Deadline – 15th Feb 2016

REGISTRATION FORM

PROGRAM DETAILS

Venue: Bangkok, Thailand
Date: 30th March – 1st April 2016

REGISTER NOW

CONTACT: kelvin
MAIN: +603 7727 3952
FAX: +603 7727 5278
Email: registration@petro1.com.my

Delegate Details

1. Name: _____ Mr Mrs Ms Dr

Job Title: _____

Email : _____

Contact No: _____

Department: _____

2. Name: _____ Mr Mrs Ms Dr

Job Title: _____

Email : _____

Contact No: _____

Department: _____

3. Name: _____ Mr Mrs Ms Dr

Job Title: _____

Email : _____

Contact No: _____

Invoice Details

Invoice Attention to: _____

Company: _____

Industry: _____

Address: _____

Postcode: _____ Country: _____

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*** Credit card payment will include a charges 2.8%**

Payment Policy: 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 come s 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.

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

Program Change policy: 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.