Training Title

SPARES OPTIMISATION & COST REDUCTION TECHNIQUES (Including 25 Step Reduction Programme)

Training Duration
5days

Training Venue and Dates

REF RM012	Spares Optimization & Cost Reduction Techniques (Including 25 Step Reduction Programme)	5	22 – 26 December, 2019	$5,000	Dubai, UAE

Training will be held at any of the 5 star hotels. Exact venue will be informed later.

Training Fees
- **5,000 US$ per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch**

Training Certificate
Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION:
Most companies do a bad job of managing their inventory effectively. There are many reasons for this, but it usually starts with bad submission of vendors recommended spare parts data, poor cataloguing and selecting initial spares.
From our experience this is not limited to any one industry. Irrespective of the industry, e.g. Oil and gas, mining, power, food & drink, electronics, semi-conductor plants, all do a bad job of managing spares leading to excess costs.
This practical 3 day workshop covers aspects related to reducing inventory and costs of spare parts and is supported by case studies, software and practical exercises to aid understanding.
This workshop focuses on reducing the inventory, which is an area often overlooked.
There are very few courses conducted that deal with the practical issues of spares cataloguing, optimising spares and stock reduction.
After this course, delegates will leave the workshop with tools and techniques that they can immediately apply in their own companies and start to reduce costs.
An Excel Analysis worksheet containing all formulae will be provided to conduct an audit of current inventory parameters. 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.

TRAINING OBJECTIVE:

As a result of attending this workshop the participants will understand:

DMCT/OL/9/18(Rev3Dt:23/9/18)

- **How to achieve consistent cataloguing**
- **The different costs associated with spares management**
- **The 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.**
- **The strategies to minimize stock**
- **How to justify the financial case for high value spares.**
- **Hoe to measure inventory performance.**
- **What can be done inhouse and what can be done with specialist software.**

TRAINING METHODOLOGY

A highly interactive combination of lecture and discussion sessions will be managed to maximize the amount and quality of information, knowledge and experience transfer. The sessions will start by raising the most relevant questions, and motivate everybody finding the right answers. The attendants will also be encouraged to raise more of their own questions and to share developing the right answers using their own analysis and experience.
All attendees receive a course manual as a reference.

This interactive training workshop includes the following training methodologies

30% Lectures
30% Workshops and work presentation
20% Group Work& Practical Exercises
20% Videos& General Discussions

WHO SHOULD ATTEND:

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

DAILY SCHEDULE

Course Introduction

Topic 1: Introduction to Spares Management
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

Topic 2: Recommended Spare Parts List (RSPL) from Vendors

RSPLs, 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 and the associated procedures sent to vendors
Examples of good and bad RSPL
10 rules for effective use of RSPL
Proposed improved format for an electronic RSPL

Topic 3: Effective Cataloguing
Introduction and detailed examples of an 8 step cataloguing process, i.e
Defining naming formatting
Developing spare type guides to ensure consistent part naming
Developing rules for Mfg's Part/Nos, dimensions, abbreviations
Define strategies i.e. who to buy from OEMs, Vendors, specialist company
Develop a set of cataloguing best practice manuals
Create upload file and quality checks
Benefits of commercial cataloguing software
Many examples collected from our numerous studies will be shown

Topic 4: Inventory Cost Reduction Programme
Introduction to a 25 step inventory reduction programme, tactics including, but not limited to:
Audit CMMS spares data quality
Challenge the decision, whether to stock and who pays
Establish spare criticality and service levels
Apply the 80-20 rule to AIV, Item Cost, Stock Holding Cost
Identify duplicates line items
Reduce internal lead times to reduce stock holding costs
Standardisation
Different strategies, min-max, reorder point control, constant vendor delivery
Replace OEM
List issues and make a plan

Topic 5: Discussion on Spares Costs
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

Topic 6: Introduction to Reliability Theory
Normal & Poisson distribution
Weibull parameters for high value spares
Explanation of service levels
Importance of the P-F
How to estimate annual usage using MTBFs or reliability data sources

Topic 7: Challenge Vendors Recommended Quantities
How to calculate estimated annual demand rates based on spare reliability
Case studies where actual consumption has exceeded initial estimates

Topic 8: When to order? (Setting of Re-Order Points, Safety Levels)
Different approaches to set safety stock
Using the Poisson distribution to set re-order points based on lead time, annual usage and criticality and the typical issue quantity
Different replenishment strategies such as ROP control, Min-Max and Constant Vendor Delivery
Exercise - setting re-order levels using formula based on the Poisson cumulative probability tables

Topic 9: How many to order?
How to determine the economic order quantity using both a formula and a tabular approach
The effects of ordering too many or too few
Evaluating whether discounts are worth accepting for higher quantities
What to do if the EOQ is not practical

Topic 10: Auditing current inventory Parameters effectiveness
Introduction to 25 inventory formulae, use an Excel worksheet to seek opportunities to reduce stock levels and stock holding costs
Metrics include service levels; safety stock, ROP, Average stock levels, no of years of stock, Annual Issue Rates, and Value, Stock holding value all calculated at line item level
Demonstration of an MS Access based application to simplify the analysis.

Topic 11: Database Solutions
Demonstration of an MS Access Based Application to simplify the analysis.

Topic 12: Evaluate Policies for Insurance Spares
Introduction to monte-carlo simulation and penalty costs to evaluate policies for insurance spares

Topic 13: Alternative Strategies
Sometimes the ROP/EOQ strategy is not appropriate, discussion on other options
Min-Max policy
Constant Vendor Delivery

NOTE:
Pre & Post Tests will be conducted
Case Studies, Group Exercises, Group Discussions, Last Day Review &Assessments will
be carried out.

……………………………….