SALVO
capture the initiative
ENGINEERING AND MAINTENANCE SERIES

1st time ever in Indonesia!

RELIABLE MAINTENANCE PLANNING, ESTIMATING & SCHEDULING

Establish Accurate Estimates for Your Maintenance Needs and Improve Reliability & Uptime through Effective Planning

3rd - 5th December 2012
JW Marriott Jakarta, Indonesia

FREE TAKE-HOME MATERIALS ON CD, E-BOOKS & FOLLOW UP SUPPORT WORTH OVER SGD 1,000!

ABOUT YOUR INTERNATIONAL EXPERT COURSE LEADER:

RALPH W. "PETE" PETERS,
Founder/President of The Maintenance Excellence Institute (TMEI) based in U.S.A

- Over 40 years of experience in the areas of implementing maintenance best practices, developing effective productivity measurement and initiating long term operational improvement processes, within both the public and private sectors
- Author of major books and handbook chapters with 200 articles and publications, including *Maintenance Benchmarking and Best Practices: A Profit and Customer-Centered Approach.*
- Organizations that have benefitted from his extensive experience include Indorama, TransGas Indo, Medco Energi, British Petroleum, Murphy Oil, Boeing, Honda, Lafarge Corporation, Caterpillar, Campbell Soup, Wyeth-Ayerst, Ford, Heinz and more!

TOP LEARNING OBJECTIVES:

1. **Establish** a successful planning-scheduling process with the essential basics plus today's new concepts for day to day and project type maintenance work
2. **Avoid** mistakes that most operations make when they try to implement this best practice
3. **Develop** reliable estimates for manpower needs to validate your maintenance budget requests and to create repair times with the trainer's trademarked ACE (A Consensus of Experts) Team Process
4. **Apply** Reliability-Centred Maintenance (RCM), Failure Modes & Effects Analysis (FMEA) & Root Cause Analysis (RCA) to support Continuous Reliability Improvement (CRI) from a planner's point of view
5. **Perform** effective MRO materials/spare parts management and manage backlog successfully to ensure availability and meet maintenance planning needs
6. **Ensure** good coordination with key stakeholders such as Production, Logistics & contractors for reliable planning, scheduling , job execution and more craft labor productivity
7. **Gain** exposure to the latest developments in technology used for maintenance planning such as daily work management systems, paperless work orders via wireless networks and electronic signatures
8. **Measure** the performance of your planning/estimating/scheduling processes with the Reliable Maintenance Excellence Index and validate ROI of all maintenance continuous improvement efforts

REDUCE MAINTENANCE COSTS BY 10% - 20% & IMPROVE CRAFT PRODUCTIVITY BY 20% - 30%

COURSE METHOD

This course is designed as an interactive mix of lectures, case studies, discussions, class exercises and templates. Delegates will develop their action plans in Powerpoint for presentation at the end of the course to bring back for implementation within their respective organizations.

Each delegate is required to bring along a laptop to be used during class exercises.

CERTIFICATE OF COMPLETION

A Certificate of Completion will be issued to all delegates completing minimum of 90% of the total hours of the course.

BOOK NOW TO SAVE UP TO SGD700!

MEDIA PARTNERS

WHY ATTEND THIS MASTERCLASS?

Effective maintenance planning, estimating and scheduling is a major best practice for all maintenance operations. In many cases, a gain of 30% to 50% in craft capacity is a very realistic ROI for an effective proactive, planned maintenance strategy. As the cost of maintenance labour rises and the complexity of production equipment increases, the maintenance function often finds itself working with lean resources. This makes it increasingly critical to establish accurate estimates and reliable performance measures for effective maintenance planning. In addition, successful execution of these planned maintenance programmes requires more than just technical expertise but also essential skills such as communication and maintenance leadership to obtain management and stakeholder support.

Salvo Global's 3-day intensive Masterclass on **"Reliable Maintenance Planning, Estimating & Scheduling"** provides Maintenance Professionals with a profit and customer-centred approach in planning, estimating, scheduling, executing, and measuring their maintenance programmes in line with international benchmarks to achieve improved uptime and reliability.

WHO SHOULD ATTEND?

- Directors
- Maintenance Managers
- Engineering Managers
- Maintenance Planners
- Maintenance Schedulers
- Maintenance Supervisors
- Maintenance Coordinators
- Storeroom Managers
- Storeroom Supervisors
- Storeroom Staff
- Plant Engineers
- Plant Directors
- Facility Managers
- Operations Managers
- MRO Purchasing/Procurement Staff

From industries including but not limited to: Oil & Gas, Utilities, Petrochemicals/Chemicals, Manufacturing, Mining, Aviation, Transportation & Rail, Pharmaceutical & Healthcare, Government, Construction, Food & Beverages etc. All other industries that see physical asset management as a factor to business success such as facilities management and hospital facilities management operations. Delegates will understand clearly how these important best practices can be easily tailored to many operations, large and small.

COURSE CUSTOMISATION TO YOUR PRIORITIES

A pre-course questionnaire will be issued to delegates immediately upon registration. This important pre-course work allows each delegate to identify and address their Top 5 specific improvement needs and concerns, which the trainer will review and discuss during the course. Work teams will then be established to begin work on a plan of action to address these challenges back in their own operations.

WHY NOT BRING THIS TRAINING INTERNALLY?

This training can be customised into an In-house training program just for your organisation. To find out more, please contact Felicia at:

Tel: +65 6297 8545 or e-mail: internaltraining@salvoglobal.com

FREE TAKE-HOME MATERIALS ON CD WORTH OVER SGD 1,000!

4 BEST PRACTICE BENCHMARKING TOOLS IN EXCEL FORMAT

- The Scorecard for Maintenance Excellence helps you define where you are with your current maintenance practices against 27 best practice categories and over 300 best practice items. It is today's most comprehensive benchmarking tool going well beyond current PAS 55: 2008.
- The Computerized Maintenance Management System Benchmarking System allows you to rank your current CMMS installation, identify specific improvement needs, and continuously monitor results after the course.
- The Reliable Maintenance Excellence Index provides complete procedures to develop your own world-class methodology to measure maintenance performance including the benefits from PM, PdM, RCM and other best practices.
- The ACE Team Process © is today's most progressive and easy to use methodology for degining reliable planning times and quality repair methods. It is a complete how-to manual for implementing this process to improve accuracy of estimates.

2 FREE E-BOOKS

NEW

- Each delegate will receive an E-book version of Pete's upcoming book "Reliable Maintenance Planning, Estimating and Scheduling" when it becomes available in manuscript format around January 15, 2014.
- Each delegate receives a complete, full-colour and unabridged E-book version of Pete's McGraw-Hill's book "Maintenance Benchmarking and Best Practices: A Profit and Customer-Centered Approach".
- Your organization receives internal reproduction rights for all TrueWorkShop materials.

REFERENCE MATERIALS

- These include all Powerpoints used, class exercises, case studies, TMEI articles and references such as "The TMEI Maintenance and MRO Materials Management Glossary" (a comprehensive glossary of maintenance and spare parts management terms) collected over many years of experience.

FREE FOLLOW-UP SUPPORT

- Even after the course is completed, the trainer's company TMEI provides complimentary follow-up support via phone, email or GoToMeeting virtual sessions when needed.

MORE ABOUT YOUR EXPERT COURSE LEADER:

Ralph W. "Pete" Peters, Founder/President of The Maintenance Excellence Institute (TMEI) based in U.S.A

Ralph W. "Pete" Peters is a highly recognized author-trainer and leader around the world in the areas of implementing maintenance best practices, developing effective productivity measurement and initiating long term operational improvement processes, within both the public and private sectors. His value as a consultant has been enhanced through his direct leadership and profit and loss responsibilities within large maintenance and manufacturing plant operations prior to focusing upon consulting. He has been managing director at two large manufacturing plants and is the author of major books and handbook chapters with 200 articles and publications, including *Maintenance Benchmarking and Best Practices: A Profit and Customer-Centered Approach*. He is also working on an upcoming book titled *Reliable Maintenance Planning, Estimating & Scheduling* focusing on Oil & Gas, Petrochemical/Chemicals & Heavy Manufacturing industries. As a frequent speaker, he has delivered speeches and seminars on maintenance-related topics worldwide in over 40 countries.

PETE HAS HELPED MANY NOTABLE ORGANIZATIONS ACHIEVE SUCCESS AND STRONG RETURNS ON PHYSICAL ASSET INVESTMENT, INCLUDING:

- Air Combat Command
- Anderson Packaging Inc.
- Atomic Energy Canada Ltd
- Boeing Commercial Airplane Group
- British Petroleum
- Campbell Soup
- Caterpillar
- Chevron Offshore
- Cooper Industries
- Ford
- General Foods
- Great River Energy
- Heinz
- Honda of America
- Indorama
- Lafarge Corporation
- Marathon Oil Corporation
- Medco Energi
- Nigeria Liquid Natural Gas
- Petronas
- Polaroid
- PTT Chemical
- Port Tanjung Pelepas
- Sheetz Inc
- Sinopec
- Titan Chemical
- Total
- TransGas Indo
- UBE Group
- Wyeth-Ayerst

He received both his BS Industrial Engineering and Masters of Industrial Engineering focused upon management information systems from North Carolina State University.

TESTIMONIALS FROM PETE'S PAST COURSES

"There are very few people with his total asset management knowledge and the ability to teach like he does around the world."
- Nigeria Liquid Natural Gas

"This course is very good for those organization that want to set up a reliability base maintenance activities."
- Titan Petchem (M) SDN BHD

"Your Reliable Maintenance Excellence Index is a terrific tool for us to finally measure the true value of maintenance." **- BP Texas City Refinery**

"I think this course is very good because the module is so complete. This course focuses on the problems and solutions surrounding equipment failures, diagnostics and effective methods to prevent them, so that this will help achieve measurable results in more efficient plant maintenance and improve plant availability." **- PT Medco E&P Indonesia**

DAY ONE – 3RD DECEMBER 2012 (MONDAY)

BUILDING THE FOUNDATION FOR EFFECTIVE PLANNING, ESTIMATING AND SCHEDULING

08:30 Registration & Coffee

09:00

- Introductions and TrueWorkShop Objectives
  - Participants define Top Priorities
  - Teams formed for final presentation of their Plan of Action per TrueWorkShop knowledge gained
- *Is it Maintenance Management or Maintenance Leadership?
- *Why your site's maintenance culture requires True Maintenance Leaders, Craft Leaders and most of all PRIDE in Maintenance!
- *Continuous Reliability Improvement: How Future Planners Will Impact Maintenance & Reliability Excellence(materials from a new book by your instructor)
  - A brief preview of Your Instructor's new book from Elsevier's Gulf Publishing Division
  - Titled as Reliable Maintenance, Planning, Estimating & Scheduling – Surface Maintenance Operation and due out in 2014 it is focused on oil, gas, petrochemical, and heavy manufacturing
  - Applies to all successful planning-scheduling processes (day to day and shutdown planning) even facilities, fleet and healthcare facilities management
  - Redefines how planners can contribute to reliability improvement
  - Outlines best practice tools (from this TrueWorkShop) that planners must understand
  - Why we can Plan for maintenance and reliability excellence!
- Today's Maintenance Challenges - Planning is Critical
- *Why many planning and scheduling processes fail to achieve maximum benefits?

PRACTICE EXERCISE:

Define Top 5 Areas for Improvement-Begin Team Work for Final Day Presentation

10:15 Coffee Break

10:30

- Review Cost Improvements and "Gained Value" Opportunities from MPES
- Selling the Benefits of Reliable Planning, Estimating and Scheduling to;
  - Management
  - Maintenance
  - Operations
  - Purchasing and the Storeroom
- *Why Your Maintenance Storeroom & Purchasing Support to Planning is Critical to Success
  - It starts with effective on site spares management and spares control
  - Vendor managed inventory
- How Planning and Scheduling Improves Craft Productivity and Overall Craft Effectiveness

PRACTICE EXERCISE:

- What Are Current Obstacles for more effective MPES?
- *Calculating Your Range of OCE Improvement Opportunities: Gained value examples from planning, reliable estimating, valid scheduling and work executing with solid monitoring & control.

12:30 Networking Lunch

13:30

- Organizing and Managing a Maintenance Planning and Scheduling Process
- Planner/Scheduler Selection and Key Roles/ Responsibilities
- Planner/Scheduler Job Description Examples

15:30 Coffee Break

15:45

- *Maintenance Best Practices Needed for Effective Planning/Scheduling (New book Sections) key excerpts from:
  - The Scoreboard for Maintenance Excellence (To evaluate overall best practice in place)
  - The CMMS Benchmarking System (to evaluate current CMMS/EAM)
  - The Reliable Maintenance Excellence (to validate results and bottom line ROI)
  - Reliability-Centred Maintenance (RCM) for Planners
    - How Failure Modes & Effects Analysis Support Job Scoping and Trouble Shooting
    - Why Root Cause Analysis (RCA) needs to be in the Planner's and the technician's Tool Box of Knowledge
  - Key Steps for managing contractor service and maximizing their productivity
  - Risk Based Maintenance and HSE Concerns all planners must consider in job plans
- *Backlog Management and Defining True Maintenance Requirements to Management
  - Define total maintenance requirements as an accurate overall backlog
  - Why reliable estimates for work orders are so essential to success?

17:00 End of Day 1

YOU WILL GET TO LEARN THROUGH PRACTICAL CASE STUDIES & EXERCISES FROM THE FOLLOWING SECTORS:

-Oil & Gas
-Manufacturing
-Mining
-Transportation & Rail
-Utilities

NOTE: Topics denoted by * will be some of the new topics included in Ralph W. Peters' upcoming book Reliable Maintenance Planning, Estimating and Scheduling, which will be emailed to all delegates when it becomes available in manuscript format in January 2014.

DAY TWO – 4TH DECEMBER 2012 (TUESDAY)

PLANNING AND ESTIMATING

08:30 Registration & Coffee

09:00

- Steps for an Effective Planning Process
- Screening Work Request, Evaluating the job for Scope of Work, Dealing with Scope Creep
- Information Support - The Maintenance Technical Library
- Job Research, Detailed Planning and Breakdown of Job Steps
- Job Preparation and the Planned Job Package
- Getting Feedback on the Job Plan
- Coordinating Equipment Access, Permitting, Safety and Compliance Issues

10:15 Coffee Break

10:30

- Detailed Planning of Materials, Tools, and Equipment
- Responsibilities of the Planner/Scheduler to the Materials Management Process
- *Materials Management's Support to Proactive, Planned Maintenance
- Why Reliable Planning Times and Estimating is Important
- Various Methods for Estimating and Work Measurement in Maintenance

12:30 Networking Lunch

13:30

- *Becoming a true Maintenance Leader, not just a Maintenance Manager
- *The ACE Team Process: A Consensus of Experts to Estimating Maintenance Type
  - Using Craft Experts for Developing Reliable Planning Times for Benchmark Jobs
  - How the ACE Team Can Improve Repair Methods, Safety and Quality
  - Developing your ACE Team of Experts

15:30 Coffee Break

15:45

- *The ACE Team Process: A Consensus of Experts to Estimating Maintenance Type
  - The ACE Team Process" An Exclusive Technique developed, designed and certified only by TMEI
  - Key Steps in Developing Reliable Planning Times for Benchmark Jobs
  - Using Benchmark Job Spread sheets for Estimating Wrench Time

PRACTICE EXERCISE:

Benchmark Job Analysis Practice

- Factors in Determining Total Planned Time for the Schedule
- Using the Job Estimating Worksheet for Total Planned Job Time for Scheduling

PRACTICE EXERCISE:

Calculating the Planning Time for Scheduling Considering Allowances to Wrench Time

17:00 End of Day 2

DAY THREE – 5TH DECEMBER 2012 (WEDNESDAY)

SCHEDULING, JOB EXECUTION AND MEASUREMENT OF RESULTS

08:00 Registration & Coffee

09:00

- Successful Scheduling Requires Effective Backlog Management
- Coordination Required by Planners for Successful Scheduling (With Case Study)
- Preparation for the Weekly Coordination Meeting
- Scheduling Techniques
- Preparing Schedules, Job Loading & Job Schedules
- Key Guidelines for Completing the Scheduling Process
- Supervisor Responsibility for Job Execution

10:15 Coffee Break

09:00

- Handling Schedule Adjustments
- Job Close-Out, Follow-up and Schedule Compliance
- *Measuring Bottom-Line Results for Investments in Planning/Scheduling
- *Measuring Performance of the Planning and Scheduling Function
- *Measuring the Performance of the Overall Maintenance Operations

PRACTICE EXERCISE:

Selecting Key Performance Metrics Developing The Reliable Maintenance Excellence Index (RMEI)

12:30 Networking Lunch

13:30

- Planner's Role in Project Type Work, Shutdown and Turnaround Planning
- Dealing with Estimating Uncertainties (Estimating, Probability and Risk)
- *Brief Introduction to the Earned Value Analysis Technique for Major Projects

PRACTICE EXERCISE:

Earned Value Analysis

15:30 Coffee Break

15:45

- *The Role of Technology in Maintenance Planning, Estimating & Scheduling
  - Utilize CMMS effectively for Maintenance Data Management
  - Ensuring data integrity and accuracy
  - Paperless work orders via wireless networks & electronic signatures
- Stakeholder Management & Effective Communication for Successful Implementation

PRACTICE EXERCISE:

Sanofi Pasteur, Anderson and Boeing

16:00 Team Presentations

- Recommended Plan of Action for improving maintenance and reliability in their organizations

17:00 Closing Remarks & End of Course