

A 2-day intensive course on

Best Practices in Plant Piping Systems – Design, Operation & Maintenance

29-30 May 2008 ■ Berjaya Langkawi Beach & SPA Resort, Langkawi

COURSE HIGHLIGHTS:

- Design Bases – Service Conditions
- Plant Piping Specifications
- Applicable ASME Code And Industry Guide
- Industry Best Practice And Applications
- Operating Strategies
- Review of Requirements of API 570
- Operator Competencies Requirements
- Maintenance Practices And Procedures
- Maintenance And Inspection
- Maintenance Repair
- Review And Q & A

Day 1

Thursday, 29th May 2008

9.00 **DESIGN BASES – SERVICE CONDITIONS**

PLANT PIPING SPECIFICATIONS

APPLICABLE CODES

- API
- ASME B 31.1 – Power Piping
- ASME B 31.3 – Petrochemical and Chemical
- ASME B 31.4 – Liquid Transmission
- ASME B 31.8 – Gas Transmission

PIPE DESIGN CONSIDERATIONS

- Flow Volumes And Velocity
- Friction Losses
- Flow Regimes
- Reynold's Number
- Operating And Transient Pressures
- Joints Design

10:30 Morning Coffee

10.45 **APPLICABLE ASME CODE AND INDUSTRY GUIDE**

UNDERSTANDING ASME REQUIREMENTS

- Pipe Supports And Hangers
- Piping Integrity And Fit For Service Requirements
- Pipe Sizing And Materials Selection

1.00 Lunch & Zohor

2:00 **INDUSTRY BEST PRACTICE AND APPLICATIONS**

- Static Loads, Dynamic Loads, Expansion, Flexibility And Support Spacing
- Limitations, Safeguards, And Engineering Controls For Piping Components, Material Properties, Fluid Characteristics, Fluid Velocity, Corrosion, Erosion

3:30 Afternoon Tea

3:45 **OPERATING STRATEGIES**

- HSE Considerations
- Startup, Shutdown, Emergency Operating Procedures
- Flushing Procedures, Heat Tracing
- Change Control Policy Procedures For Process Operating Changes

4:30 **QUESTION & ANSWER**

5:00 End of Day 1

Day 2

Friday, 30th May 2008

9:00 **REVIEW OF BASIC REQUIREMENTS OF API 570**

- Inspection
- Rerating
- Thickness Measurement Limits
- Remaining Life Calculations

10:30 Morning Coffee

10:45 **OPERATOR COMPETENCIES REQUIREMENTS**

- Competency Gap Analysis
- Gap Closure Measures

12:00 **MAINTENANCE PRACTICES AND PROCEDURES**

- Zero Leak Program
- Remedial Measures

1:00 Lunch & Zohor

2:00 **MAINTENANCE AND INSPECTION**

- Methods For Hydrotesting And Leak Testing
- Inspection (Visual, NDT)
- Evaluation Of Cracks And Flaws
- Evaluation Of Mechanical Damage
- System Evaluation For Remaining Life
- Validating Inspection Data

3:30 Afternoon Tea

3:45 **MAINTENANCE REPAIR**

- Welded Repairs
- Hot Tapping
- Temporary Repairs
- Permanent Repairs
- Specialized Repairs

4:30 **REVIEW AND Q & A**

5:00 End Of Course

AFTER ATTENDING THIS COURSE, YOU WILL RETURN TO YOUR JOB...

- Understanding clearly the key aspects of piping systems including design, operation, maintenance, failure prevention, and troubleshooting, including the applicable codes, standards and industry practices.
- Obtaining practical and effective methods and guidelines to assist in achieving, cost-effective operation and maintenance of piping systems with high technical integrity.
- Developing skills in troubleshooting and improving existing piping systems.

WHO SHOULD ATTEND

- Consulting Engineers • Design Engineers
- Maintenance Engineers (military and industry)
 - Project Engineers
 - Maintenance Superintendents
- Maintenance Personnel • Service Engineers
- Planners and Schedulers • M & E Foremen
- Chargemen & Technical • Technical Assistants
 - Technical Co-ordinators
 - Operation & Maintenance Personnel
 - Technicians • New/Trainee Engineers
 - Contractors

CERTIFICATE OF COMPLETION

A Certificate of Completion will be awarded upon successful completion of each course. This serves as evidence of your personal and professional commitment to your career.

Program topics, speakers and schedules published herein are confirmed as at printing time. Please refer to the event's timetable page at www.cmtevents.com for the most up-to-date information.

REGISTRATION

Best Practices in Plant Piping Systems – Design, Operation & Maintenance

Name	
Position	
Email	
Name	
Position	
Email	
Tel	Fax

Company	
Address	
City/Postcode	Country
Approving Manager's Name	
Position	
E-mail	

Fees: The full Registration Fee includes cost of all sessions, luncheon, coffee/tea & documentation.

	1 Person	Group fee for 3 or more* (from the same company)
Regular Fee	RM2,995	RM2,695 (MIN SAVINGS OF RM900)

* Terms and conditions apply.

Cancellations, Refunds & Transfers: A full refund will be promptly made for all written cancellations 3 weeks before the meeting. Thereafter, cancellations are not refundable. A substitute may be made at any time.

Cheques : Crossed & payable to
“Centre for Management Technology Sdn Bhd”

Photocopy Registration Form to Preserve Brochure Copy. May 2008

TELEGRAPHIC TRANSFER

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TO REGISTER

Online: www.cmtevents.com
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 Fax: (603) 2162 6393 Tel: (603) 2162 7322
 Post to: Lot 7.03, 7th Floor, North Block, The Ampwalk,
 218 Jalan Ampang, 50450 Kuala Lumpur

COURSE VENUE

CMT has arranged special discounted room rate at
RM330 nett (Superior Chalet) / RM370 nett (Deluxe Chalet) per room per night (subject to room and rate availability) for participants at
Berjaya Langkawi Beach & Spa Resort.
 Please reserve your room with our Course Administrator, Ms Yvonne, providing full credit card number and expiry date.
 Tel: 603 2162 7322 Fax: 603 2162 6393
 Email: adminkl@cmtsp.com.sg
Cut off Date for Room Booking: 5 May 2008

Register online ~ www.cmtevents.com

LEARN FROM THE BEST

ROBERTO MARAVILLA, BS in Mech Eng., was acting Consultant to Petronas Plants & Qatar Petroleum on the following subjects; Pipelines & Piping System and Mechanical Equipment Management.

Prior to that, Roberto was a Corporate Assessor attached to a Multinational Oil and Gas company, where he evaluated the competency of engineers, operators and technicians. He was also responsible for identifying, analysing, developing and delivering of courses/training programmes for the staff. Roberto has also customised courses for other clients, notably ESSO Production Malaysia, SUDAN Petroleum and PETRO-VIETNAM oil refinery.

He has taken the lead in the development and delivery of the multinational company initiative on “World Class Plants” with subjects like Reliability

Centered Maintenance – A New Approach, Pipelines and Piping Systems, Mechanical Equipment Management, Operations and Maintenance of Boilers, he has also developed and delivered a host of other generic courses like Pumps, Compressors, Furnace, Distilling Columns, Separators, Heat Exchangers, Internal Combustion Engines, Gas Turbines, Storage Tanks.

Roberto also was a Deputy Project Manager responsible for a project implementation, which totalled a contract value of USD 40 million and has also served as a Project Manager in a Nuclear Power Plant overseas.

With his vast experience, he is able to provide hands-on and practical training sessions, which have received excellent feedback from past clients from both the local and international markets.