

A 2-intensive course on

## **BOILERS**

# ~ Operations, Maintenance & Troubleshooting

17-18 November 2008 | JW Marriott Hotel, Kuala Lumpur

#### **COURSE HIGHLIGHTS**

- Boiler Types And Applications
- Major Boiler Component Systems
- Boiler Operating Principles
- Boiler Performance And Efficiency (Operations)
- Maintenance And Inspection

#### **METHODOLOGY**

Participants learn through lectures with interactive presentation (Questions & Answers). As the subject progresses, active audience participation is encouraged along the entire course



- Case Studies, Review & Discussion
- Open Forum, Q & A

#### TYPES OF BOILERS

- 1. WATER TUBE BOILERS
- 2. FIRETUBE BOILERS
- 3. ONCE-THROUGH POWER BOILER
- 4. PACKAGE BOILERS

#### Day 1 - Monday, 17 November 2008

#### 9:00 COURSE INTRODUCTION

#### **TYPES OF BOILER**

- Firetube Boiler
- · Water Tube Boiler
- · Package Boiler
- Once-Through Power Boiler

#### **APPLICATIONS**

- 10.30 Morning Coffee
- 10:45 BOILER OPERATING PRINCIPLES

**BOILER OPERATIONS** 

BOILER STARTUP AND SHUTDOWNS

- 11:30 SAFETY FEATURES
  - Safety Relief Valves
  - Bursting Disc
- 1.00 Lunch & Zohor

2:00 MAJOR BOILER COMPONENT SYSTEMS

**AIR SYSTEM** 

**FUEL SYSTEM** 

FEEDWATER SYSTEM

- 3:30 Afternoon Tea
- 3:45 BURNER MANAGEMENT SYSTEM

INSTRUMENT & CONTROL SYSTEM

STEAM SYSTEM

CASE STUDIES, REVIEW & DISCUSSION

- 4:30 OPEN FORUM, Q & A
- 5.00 End Of Day 1

Day 2 - Tuesday, 18 November 08

9.00 BOILER PERFORMANCE AND EFFICIENCY (OPERATIONS)

**BURNER LIGHT-UP** 

#### **COMBUSTION SYSTEM**

- · Principles Of Combustion
- Requirements For Combustion
- Atomization

**CONTROL VANES** 

**BOILER CONTROL STRATEGY** 

**SWELL AND SHRINK** 

10:30 Morning Coffee

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.

#### 10:45 CROSS LIMIT CONTROLS

#### **INTERLOCKS AND TRIPS**

- Trip Logic
- Purge Logic

## IGNITION AND LIGHT UP SEQUENCE

#### **ALARMS**

- 1:00 Lunch & Zohor
- 2:00 MAINTENANCE AND INSPECTION

#### **BOILER PROBLEMS**

- Improper Warm Up
- Boiler Drum Water (Shrink & Swell)

#### **BOILER TUBE PROBLEMS**

- Scale
- Tube Ruptures
- Tube Buckling
- Soot

#### **BOILER TUBE REPAIRS**

#### **TUBE FAILURES**

FEEDWATER SUPPLY PROBLEMS

**FUEL SUPPLY PROBLEMS** 

AIR SUPPLY PROBLEMS

REGULAR MAINTENANCE SCHEDULE

- 3:30 Afternoon Tea
- 3:45 **cont. MAINTENANCE AND INSPECTION**
- 4.30 OPEN FORUM, Q & A
- 5:00 End of Course

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

- 1. Maximising boiler operations.
- 2. Learning better boiler management.
- 3. Optimising combustion efficiency.
- 4. Obtaining a thorough understanding on modern boilers.
- 5. Increasing maintenance practices for higher plant availability.
- 6. Being able to operate and maintain boilers with greater efficiency and safety.
- 7. Handling emergency situations in boiler plants with confidence.
- 8. Increasing the reliability and plant availability.
- 9. Learning to be cost effective with improved boiler plant performance.

#### WHO SHOULD ATTEND

- Consulting Engineers
- Maintenance Engineers
  - Project Engineers
- Maintenance Superintendents
  - Maintenance Personnel
    - Service Engineers
      - Operators
    - M & E Foremen
    - Technical Assistants
  - HR and Administration staff
    - Technical Co-ordinators
- Purchasing and Materials Control personnel
  - Operation & Maintenance Personnel
    - Technicians
    - New/Trainee Engineers
      - Contractors

	REGISTRATION			
	Name		С	ompany
& Troubleshooting	Position		A	ddress
	Email			
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				Fees: The luncheon
				* Terms and
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#### **TO REGISTER**

Online: www.cmtevents.com

Email: adminkl@cmtsp.com.sg

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

#### **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 you career.

#### **COURSE TIMING**

- Operations, Maintenance

Update your details at www.cmtevents.com

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Registration: 8.30 am, Course Begins: 9.00 am, Morning Coffee: 10.30 am, Lunch: 1.00 pm to 2.00 pm,

Tea Break: 3:30 pm, Course Ends: 5.00 pm

Company	
Address	
City/Destands	0 1 -
City/Postcode	Country
Approving Manager's Name	Country

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	RM1,995	RM1,695 (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. November 2008

#### **TELEGRAPHIC TRANSFER**

Account Name: Centre for Management Technology Sdn Bhd

A/C No: **3 - 0903390 - 12**Bank: Public Bank Berhad

Branch: Grd Floor, Menara Public Bank Jalan Ampang

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TT must include additional RM10 for Beneficiary's Bank charges. Delegates must bear all bank charges and local taxes (if applicable). Fees must be NETT of ALL charges.

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#### Register online ~ www.cmtevents.com

#### LEARN FROM THE BEST

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

Prior to that, Roberto was a Corporate Assessor with a Multinational Oil and Gas company, where he evaluated the competency of engineers, operators and technicians. He was responsible for identifying, analysing, developing and delivering of courses/training programmes. Roberto has also customised courses for Esso Production Malaysia, Sudan Petroleum and PetroVietnam 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, Pipelines and Piping Systems, Distillation Columns, Storage Tanks & Maintenance of Boilers.

Roberto was a Deputy Project Manager responsible for a project implementation valued at USD 40 million. He 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.