

A 2-day intensive program on

PRESSURE VESSEL - Design & Maintenance

FOCUSING ON:

16-17 November 2009

PARKROYAL HOTEL

KUALA LUMPUR

SECTION 1 - PRESSURE VESSEL DESIGN

- Basic Pressure Vessel Concepts
- Materials Of Construction For Pressure Vessels
- Specifying Design Requirements For Pressure Vessels
- Fabrication, Inspection And Testing Of Pressure Vessels

SECTION 2 - PRESSURE VESSEL MAINTENANCE

- Pressure Vessel Integrity Program
- Fitness-For-Service Assessments
- API 510 Requirements
- Pressure Vessel Inspection
 Practices
- Evaluating Corroded Pressure
 Vessels For Continued Operation
- Brittle Fracture Assessment
- Details For Welded Repairs And Alterations
- Rerating Pressure Vessels

OBJECTIVE

This practical, applications-oriented course is divided into two sections: pressure vessel design and pressure vessel maintenance. Upon completion of this course, participants will be able to evaluate the mechanical design of pressure vessels in accordance with the ASME Code Section VIII. They will also be able to develop a pressure vessel maintenance program based on API 510 and other industry practices, and then apply these requirements to typical pressure vessel maintenance situations.

PROGRAM DESCRIPTION

Individuals who are responsible for designing, reviewing, and implementing pressure vessel maintenance programs should first have a good understanding of pressure vessel design. This course treats both the design and maintenance aspects of pressure vessels.

It first provides the information necessary for individuals to be able to evaluate the design of pressure vessels in accordance with the ASME Code Section VIII, with the emphasis on Division 1. To do this, participants will learn the fundamental requirements specified in the ASME Code. It then provides the information necessary to develop a pressure vessel maintenance program and evaluate pressure vessel mechanical integrity in accordance with API 510 and other industry practices. The following topics are covered:

Day One Monday, 16th November 2009

SECTION 1 - PRESSURE VESSEL DESIGN

9:00 **Opening and Introductions**

BASIC PRESSURE VESSEL CONCEPTS

- Main Pressure Vessel Components
- Primary Pressure Vessel Process Functions
- 10:30 Morning Coffee

9:15

10:45 MATERIALS OF CONSTRUCTION FOR PRESSURE VESSELS

- Factors That Affect Material Selection
- Determining Maximum Allowable Stresses
- Material Selection Requirements
- 1:00 Lunch and Zohor

2:00 SPECIFYING DESIGN REQUIREMENTS FOR PRESSURE VESSELS

- The ASME Code in Pressure Vessel Design
- Specifying Design Conditions and Loadings
- Vessel Component Thickness Design Criteria
- Design Calculations for Pressure Vessel Components
- Design of Pressure Vessel Supports

3:30 Afternoon Tea

3:45 FABRICATION, INSPECTION AND TESTING OF PRESSURE VESSELS

- Evaluating Fabrication Drawings for Acceptability
- Inspection and Testing Requirements
- Work aids and procedures to evaluate pressure vessels
- 5:00 End Of Day 1

Day Two Tuesday, 17th November 2009

SECTION 2 - PRESSURE VESSEL MAINTENANCE

9:00

PRESSURE VESSEL INTEGRITY PROGRAM

- Overall Risk Assessment
- Inspection Plan

FITNESS-FOR-SERVICE ASSESSMENTS

- Overview of API RP 579 requirements
- Data Requirements
- Assessment Methods and Acceptance Criteria

API 510 REQUIREMENTS

- Scope
- Definitions
- 10:30 Morning Coffee
- 11:00

PRESSURE VESSEL INSPECTION PRACTICES

- Causes of Vessel Deterioration
- Inspection Intervals
- Corrosion Rate Determination

EVALUATING CORRODED PRESSURE VESSELS FOR CONTINUED OPERATION

- Determining Minimum Actual Thickness
- Acceptability of Corroded Area

1:00 Lunch and Zohor

2:00 BRITTLE FRACTURE ASSESSMENT

- Fracture Toughness Determination
- Brittle Fracture Evaluation of Existing Equipment

DETAILS FOR WELDED REPAIRS AND ALTERATIONS

- Classification of Repairs and Alterations
- Welding and Design
 Requirements
- Defect Repairs

RERATING PRESSURE VESSELS

- Changes to Original Design
 Conditions
- Hydrotest Requirements
- 3:30 Afternoon Tea

3:45 GLOSSARY

Q & A SESSION

5:00 End of Program

PROGRAM FACILIATOR

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, Operations and Maintenance of Boilers, Design and Maintenance of Pressure Vessels, Pipelines and Piping Systems, Mechanical Equipment Management, 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.

In his vast experience in Fabrication while serving as General Manager of Advance Steel Products were Design, Fabrication & Erection of Boiler Drums and Pressure Vessels.

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.

WHO SHOULD ATTEND

- Individuals who are responsible for evaluating the design of pressure vessels in accordance with the ASME Code Section VIII.
- Individuals who are responsible for evaluating the mechanical integrity of in-service pressure vessels in process plant applications. Managers who are responsible for implementing a pressure vessel maintenance program and desire an understanding of applicable evaluation procedures.
- M & E Consulting Engineers
- Plant Engineers/Managers
- Maintenance Superintendents
- Service Engineers
- Safety Managers/Officers
- New/Trainee Engineers

- Maintenance Engineers/Managers
- Project Engineers
- Maintenance Personnel
- Pressure Vessel Regulatory Body
- Technicians
- Contractors

Pressure Vessel - Design and Maintenance

16-17 NOVEMBER 2009 | PETALING JAYA

Photocopy Registration Form to Preserve Brochure Copy. November 2009

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Please fax us the completed registration form

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	50450 Kuala Lumpur	

FEES

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

1 Person	Group fee per person for 3 or more* (from the same company)
RM2695	RM2295 (MIN SAVINGS OF RM1200)

* 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.

PAYMENT

By 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 Swift code: PBBEMYKL

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.

CHEQUES: Crossed & payable to "Centre for Management Technology Sdn Bhd"

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

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

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