

BUILDING OPERATIONAL EXCELLENCE IN THE PROCESS INDUSTRY

venue/ **UTM City Campus, Kuala Lumpur, MALAYSIA**

date/ **11-14 December 2006 or 5-8 March 2007 or 6-9 August**



Organised by

CEPP

Chemical Engineering
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2007 Introduction |

The success of every company depends of each employee's understanding of the business's key components. Employee training and development will unlock the companies' profitability and reliability.

This seminar was designed to serve as a guide to building the operation and maintenance group's excellence in the process industry. Understanding the fundamentals of process unit equipment will greatly improve your team's operational excellence and safety. The operation and maintenance groups are the process unit's first line of defence; the flare is the last line of defence.

Course Objectives |

The objective of this seminar is to provide an understanding of the fundamentals of process unit equipment in the process industry. This seminar would be beneficial to those directly or indirectly involved in the process industry. To those with experience in the process industry, this seminar can reinforce their practical experience and broaden their data base. To those new in the process industry, this seminar can serve as a platform to build their data base of experience. This seminar focuses on the core building blocks of the process unit equipment. The program will emphasise process unit equipment fundamentals, safe utilization of these fundamentals by operation and maintenance personnel, and equipment troubleshooting techniques.

What you can expect to gain :

Process unit equipment fundamentals – how each system functions from a **HANDS-ON** viewpoint Safe commissioning and utilization of process equipment Maintenance Guidelines Process furnace concepts and application Rotating equipment concepts and application Catalyst and molecular sieves concepts and application Distillation concepts and troubleshooting Process control concepts and application Cooling water concepts and application Flare safety guidelines.

Course Outline |

Introduction

- Overview of the Process Industry
- Chemistry of the Process Industry
- Safety for the Operation and Maintenance Groups

Furnaces

- Overview of the Process Furnace
- Safe Commissioning of a Process Furnace
- Economics : Excess Air Control, Flame Pattern
- Troubleshooting
- Maintenance Guidelines
- Safety

Boilers and Steam Systems

- Overview of Boilers and Steam Systems
- Safe Commissioning of Boilers and Steam Systems
- Economics : Excess Air Control, Demin Water and Condensate
- Troubleshooting
- Maintenance Guidelines
- Safety

Steam Turbines, Pumps and Compressors

- Overview of Rotating Equipment
- Safe Commissioning of Rotating Equipment
- Economics : Steam Temperature, Preventive Maintenance
- Troubleshooting
- Maintenance Guidelines
- Safety

Distillation

- Overview of Distillation Equipment
- Safe Commissioning of Distillation Equipment
- Economics : Reflux Optimization, Reboiler Optimization, Tray Efficiency
- Troubleshooting
- Maintenance Guidelines
- Tray versus Packing
- Safety

Piping and Heat Exchangers

- Overview of Piping and Heat Exchanger Equipment
- Safe Commissioning of Piping and Heat Exchanger Equipment
- Economics : Heat Exchanger Monitoring
- Troubleshooting
- Maintenance Guidelines
- Safety : Pressure Concerns

Process Control and Systems

- Overview of Process Control Systems
- Safe Commissioning of Equipment utilizing Process Control Systems
- Economics : Process Optimization and Integration
- Troubleshooting
- Maintenance Guidelines
- Safety

Electrical Systems

- Overview of Electrical Systems
- Safe Commissioning of Electrical Systems
- Economics : Lighting Guidelines
- Troubleshooting
- Maintenance Guidelines
- Safety

Catalyst and Molecular Sieve Systems

- Overview of Catalyst and Molecular Sieve Systems
- Safe Commissioning of Catalyst and Molecular Sieve Systems
- Economics – Life Evaluation
- Troubleshooting
- Maintenance Guidelines
- Safety – Temperature Monitoring

Cooling Water Systems and Treatment

- Overview of Cooling Water Systems and Treatment
- Safe Commissioning of Cooling Water Systems
- Economics – Cost/Benefit Evaluations
- Troubleshooting
- Maintenance Guidelines
- Safety – Water Vapor to Liquid Ratios

Process Utilities

- Overview of Process Utilities
- Safe Commissioning of Process Utilities
- Economics – Cost/Benefit Evaluations
- Troubleshooting
- Maintenance Guidelines
- Safety – Nitrogen Issues

Relief Valve and Flare Systems

- Overview of Relief Valve and Flare Systems
- Safe Commissioning of Relief Valve and Flare Systems
- Economics – Evaluations of Flare Sweeps
- Troubleshooting
- Maintenance Guidelines
- Safety – Temperature Issues

Summary and Certificate Presentation

Who should attend |

- **People who are making day to day decisions regarding operation, design and economics of process industry plants;** 1st Line Operations Personnel, Operation Supervisors, 1st Line Maintenance Personnel, Maintenance Supervisors, Senior Plant Supervisors, Operations Engineers, Process Support Engineers, Design Engineers, Cost Engineers.
- **Ideal for veterans and those with only a few years of experience who want to review or broaden their understanding in Process Plant Operations.**
- **Other professionals who desire a better understanding of the subject matter.**

Course Tutor |



MR. KARL KOLMETZ | He is currently the General Manager for KLM Technology Group. He has over twenty-five years of progressive experience in the design, construction, commissioning, and operations management of process units from the US Gulf Coast to Alaska through Asia. He has a strong background in the manufacturing of a wide variety of chemical process technologies and product categories including; cryogenic liquids, ethylene, propylene, benzene/toluene extraction, styrene, catalytic reforming, crude atmospheric/vacuum fractionation, polyvinyl chloride, and steam /power plant operations. Mr. Kolmetz has substantial experience in the design and trouble shooting of distillation columns, which is one of the key unit operations in hydrocarbon production. His experiences includes four eyes of Construction, two of which were on the Alaskan Pipeline with Fluor Daniel. Seventeen years of Refining experience, including eleven years in Catalytic Reforming, in The Charter/Phibro Refinery (now Valero Refinery) in Houston, Texas. One year of commissioning experience with Raytheon Badger EB/Styrene plants in Asia. Seven years Ethylene experience: four years in Louisiana and three years in Malaysia. Presently is the Asian Assistant Technology Manager for Sulzer Chemtech a leading distillation tower internals manufacturer. Karl has a Degree in Chemical Engineering from the University of Houston and is a member of the American Institute of Chemical Engineers.

Some of these companies are :

PETRONAS, SHELL, BP, SAUDI ARABIA BASIC IND. CORP. (SABIC), QATAR LNG, ALMARAI (SAUDI ARABIA), IDEMITSU, EASTMAN CHEMICALS, BASF PETRONAS, KUWAIT INSTITUTE for SCIENTIFIC RESEARCH, YOZAI, KHARTOUM REFINERY, EMMERSON(Singapore), LOADSTAR Ltd. (Sri Lanka) etc.

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Course Fee	Single	2 or more
Local Participant (RM)	2350	2250
International Participant (USD)	1750	

(Fee is inclusive of lunch, refreshments and course materials)

Method of Payments

Please kindly complete and return the reply form together with:

Local Participants

- By cheque / Bank draft which are made payable to **PHYTO BIZNET SDN. BHD.**

International Participants

- By Direct Transfer/Bank Draft:
CEPP Bank details: **Bumiputra Commerce Bank Berhad
Universiti Teknologi Malaysia
81310 UTM Skudai, Johor, Malaysia**
- Account No : **0118-0004178-05-7**
- Please instruct your bank to remit us the full amount, net of bank charges.

Cancellation & Substitutions

A full refund will be promptly made for all written cancellations 2 weeks before the meeting. 50% refund will be made for written cancellations received 7 days before the meeting. A substitute may be made at any time.

Note a) The organiser has the right to make any amendments that they deem to be in the best interest of the course and to cancel the course if insufficient registrations are received a week before course commencements date .

B) CERTIFICATE OF ATTENDANCE will be awarded at the end of the course.

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REPLY FORM

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UTM City Campus, Kuala Lumpur, MALAYSIA

- **Please tick (x) where appropriate**

11-14 December 2006 5-8 March 2007 6-9 August 2007

YES ! I would like to register the following participants

Name 1 _____

Job Title _____

Name 2 _____

Job Title _____

COMPANY INFORMATION

Company _____

Address _____

Town _____

State _____

Tel _____ Fax _____

AUTHORISED Signatory (*This registration is invalid without signature form an authorised officer)

Name _____

Job Title _____

Tel _____ Fax _____

Available accommodation around UTM *City Campus*, Kuala Lumpur

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Crown Princess Hotel Tel : +603-2162 5522 Fax : +603-2162 4492

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Nikko Hotel Tel : +603-2161 1111 Fax : +603-2161 1122

BATC, UTM Tel : +603-26914020 Fax : +603-2691 1294

ENQUIRIES

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