

PROCESS EQUIPMENT ECONOMICS, TROUBLESHOOTING AND SAFETY

Register before
10th Apr 2007
And save
US\$ 400/-

June 10-14, 2007,
Crowne Plaza Hotel, Dubai



***The Operation and Maintenance Groups
are Process Unit's First Line of Defense.***

THE FLARE is the last line of Defense

WHAT YOU CAN EXPECT TO GAIN

- The 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 mole sieves concepts and application
- Distillation concepts and troubleshooting
- Process control concepts and application
- Cooling water concepts and application
- Flare safety guidelines

Sectors covered in this seminar include;

- Furnaces
- Boilers and Steam Systems
- Steam Turbines, Pumps, and Compressors
- Distillation
- Piping and Heat Exchangers
- Process Control Systems
- Electrical Systems
- Catalyst and Molecular Sieve Systems
- Cooling Water Systems and Treatment
- Process Utilities

ABOUT THIS COURSE

Since day-to-day operation problem solving and optimizing are critical to the profitability of plant operations, troubleshooting is a prime responsibility of process plant engineers. The importance of troubleshooting has grown as plants push to operate at higher and higher throughput levels. Lost profits due to unsolved unit problems can never be recovered. Consistently maintaining smooth operation, maximum capacity, and acceptable product quality are important goals that can be difficult to achieve. Thus, this program has been developed to provide an in-depth, yet practical review of the art and science of plant troubleshooting.

The program's content is both comprehensive and wide-ranging. The sessions begin with a discussion of the fundamentals, including process objectives, equipment behavior, interaction of the process and equipment, and troubleshooting techniques. A case study approach covers major equipment found in process plants. All case studies are developed from actual field case histories. This approach demonstrates the complexity of actual plant operations and how to simplify and identify solvable problems. Once the fundamentals are established the session moves into the topics of troubleshooting techniques, analysis, and problem solving.

AVAILABLE AS IN-HOUSE COURSE

FOR REGISTRATION, CALL +971 4 214 9560 or FAX +971 4 214 9501 or WRITE to training@tcqtriangle.com

PROCESS EQUIPMENT ECONOMICS, TROUBLESHOOTING AND SAFETY

MEET THE SUBJECT MATTER EXPERT

Mr. Karl Kolmetz



Karl Kolmetz 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 troubleshooting of distillation columns, which is one of the key unit operations in hydrocarbon production.

His experience includes;

- Four years (4) of Construction, two of which were on the Alaskan Pipeline with Fluor Daniel,
- Seventeen years (17) of Refining experience in the Charter / Phibro (now Valero) Refinery in Houston, Texas,
- One year of commissioning experience with Raytheon Badger Ethyl benzene / Styrene plants in Asia,
- Seven years (7) Ethylene experience: four years in Louisiana and three years in Malaysia with the Westlake / Titan Group,
- Two years (2) of distillation design experience as the Asia Pacific Technology Manager for a specialty distillation company.

His Publications include authoring and co-authoring over 35 technical papers on a variety of subjects for product recovery, troubleshooting, training, project management, process design with safety and environmental concerns. Papers have appeared in Oil and Gas Journal (5), Hydrocarbon Processing (1), and Chemical Engineering Progress (1). Conference papers have been presented at the AIChE Conferences, the Indian Oil & Gas Conference, the Japan Petroleum Institute Refining Conference, Oil and Fats International Congress, Best Practices in Process Plant Management, and the Asean Regional Olefins Conferences, as well as others.

Karl has been nominated to a task force to help review Chemical Engineering Curriculum in Malaysia. He has a Bachelor of Science in Chemical Engineering from The University Of Houston. He is a member of the American Institute of Chemical Engineers and The American Chemical Society.

COURSE OBJECTIVE

This seminar's goals are to provide an understanding of the fundamentals of process unit operational equipment in the processing industry. This seminar would be beneficial to those directly or indirectly involved in the processing industry. To those with experience in the processing industry, this seminar can reinforce their practical experience and broaden their data base. To those new in the processing 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 emphasize process unit equipment fundamentals, safe utilization of these fundamentals by operations and maintenance personnel, and equipment troubleshooting techniques.

WHO SHOULD ATTEND

- People who are making day to day decisions regarding operation, design, and economics of processing plants;
 1. 1st Line Operations personnel
 2. Operation Supervisors
 3. 1st Line Maintenance personnel
 4. Maintenance Supervisors
 5. Senior Plant Supervisors
 6. Operations Engineers
 7. Process Support Engineers
 8. Design Engineers
 9. Cost Engineers
- Ideal for veterans and those with only a few years of experience who want to review or broaden their understanding in Processing Plant Operations.
- Other professionals who desire a better understanding of subject matter

FEES

US\$ 2,900- per delegate. This rate includes Participants' Pack (Folder, Manual, Hand-outs, etc), buffet lunch and coffee/tea during breaks. Please check the registration form for discount information.

ACCOMMODATION

Accommodation is not included in the workshop fees. However, any accommodation required can be arranged by **TCQ TRIANGLE** at the time of booking.

CERTIFICATE

A Certificate for Training reception signed by **Karl Kolmetz** will be handed to all delegates successfully completing the workshop.

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COURSE OUTLINE

Introduction

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

Furnaces

- ◆ Overview of Process Furnace
- ◆ Safe Commissioning of a Process Furnace
- ◆ Economics – Excess Air Control, Flame Pattern
- ◆ Trouble Shooting
- ◆ 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
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety

Steam Turbines, Pumps and Compressors

- ◆ Overview of Rotating Equipment
- ◆ Safe Commissioning of Rotating Equipment
- ◆ Economics – Steam Temperature, Preventative Maintenance
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety

Distillation

- ◆ Overview of Distillation Equipment
- ◆ Safe Commissioning of Distillation Equipment
- ◆ Economics – Reflux Optimization, Reboiler Optimization, Tray Efficiency
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines – Tray verses 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
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety – Pressure Concerns

Process Control Systems

- ◆ Overview of Process Control Systems
- ◆ Safe Commissioning of Equipment utilizing Process Control Systems
- ◆ Economics – Process Optimization and Integration
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety

Electrical Systems

- ◆ Overview of Electrical Systems
- ◆ Safe Commissioning of Electrical Systems
- ◆ Economics – Lighting Guidelines
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety - wire temperature monitoring

Catalyst and Molecular Sieve Systems

- ◆ Overview of Catalyst and Molecular Sieve Systems
- ◆ Safe Commissioning of Catalyst and Molecular Sieve Systems
- ◆ Economics – Life Evaluation
- ◆ Trouble Shooting
- ◆ 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
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety – Water vapor to liquid ratios

Process Utilities

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

Relief Valve and Flare Systems

- ◆ Overview of Relief Value and Flare Systems
- ◆ Safe Commissioning of Relief Valve and Flare Systems
- ◆ Economics – Evaluation of flare sweeps
- ◆ Trouble Shooting
- ◆ Maintenance Guidelines
- ◆ Safety – Temperature Issues

Summary

PROGRAMME

08:00 AM- 10:00 AM	First Session
10:00 AM- 10:15 AM	First Break
10:15 AM- 12:00 PM	Second Session
12:00 PM– 12:30 PM	Second Break
12:30 PM- 02:30 PM	Third Session
02:30 PM- 03:30 PM	Lunch

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10-14 June 2007

Crowne Plaza Hotel • Dubai

REGISTRATION FORM

Yes, Please register the following personnel to attend the workshop
(Use copies of this form for additional participants)

1st Delegate
Name Mr/Mrs/Ms

Position

Telephone Fax

Email

2nd Delegate
Name Mr/Mrs/Ms

Position

Telephone Fax

Email

3rd Delegate
Name Mr/Mrs/Ms

Position

Telephone Fax

Email

4th Delegate-FREE!
Name Mr/Mrs/Ms

Position

Telephone Fax

Email

AUTHORISATION

Organization

Address

State Country

Telephone Fax

Authorising Manager

Position

Signature

Date

4 EASY WAYS TO REGISTER

- ☎ Call +971 4 214 9560
- ☎ Fax the registration form to +971 4 214 9501
- ✉ Email this form to training@tcqtriangle.com
- ✉ Mail this form along with Cheque/draft to
TCQ TRIANGLE
P O Box 54620
Dubai
United Arab Emirates

PRICES AND OFFERS

Fees

5-Day Seminar : **US\$ 2,900/-**

Early Bird Offers

Register for US\$ 2700/- on or before 10th May 2007 and save **US\$ 200/-**

Register for US\$ 2500/- on or before 10th April 2007 and save **US\$ 400/-**

Team Discounts

Send three delegates from your organization and the fourth delegate attends **FREE**

Hotel Reservations and Visa

Please contact us for any assistance in Hotel Reservations or Visas.

METHOD OF PAYMENT

Cheque/Draft Payable to **TCQ TRIANGLE**
Bank Transfer A/C No. 1000635563
Commercial Bank of Dubai
Al Maktoum Branch
SWIFT: CBDUAEAD

Invoice

Contact Name:

Tel:

Fax:

Terms and Conditions

Fees are inclusive of programme materials and refreshments

Payment terms: Following completion and return of the registration form. Full payment is required within 5 days from receipt of invoice unless otherwise as stated in the invoice. TCQ TRIANGLE reserve the right to refuse admission, if payment is not received on time.

Cancellation/Substitution: If you are unable to attend, you can send a substitute delegate in your place. If this is not possible, a \$100 service charge will be payable. Registrations cancelled less than 2 weeks before the event must be paid in full. Cancellation must be received in writing by mail or fax before two weeks of the event. Non-payments and non-attendance does not constitute cancellation. If for any reason TCQ TRIANGLE decides to cancel or postpone the event, TCQ TRIANGLE is not responsible for covering airfare, hotel or other travel cost incurred by clients.

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Important Note: While every reasonable effort will be made to adhere to the advertised package, TCQ TRIANGLE reserve the right to change event dates, sites, location or omit event features or alternate offers shall be made.



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TCQ TRIANGLE LLC, 220 E. Delaware Avenue, Newark, DE 1971, U.S.A.
Tel: +1 302-295-6295 Fax: +1 302-295-6297 Email: training@tcqtriangle.com