ENGINEERING PRACTICE

Advanced Distillation Operation, Control and Troubleshooting

A team of highly experienced associates in the USA, Malaysia, Indonesia and Singapore

Train over 2000 personnel since 1997

Recognized world-wide in the areas of Chemical Engineering, Process Equipment Design, distillation simulation, column design and unit commissioning





Conference

2024

30 Sept

4 Oct

KLM Group



Karl Kolmetz

Managing Director <u>KLM Technology Group</u> Editor for ———— * Engineering Practice Magazine * Handbook of Process Equipment Design

www.klmtechgroup.com

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PRACTICAL ENGINEERING SOLUTIONS

INTRODUCTION



The Success of Every Company

Depends of each employee's understanding of the key business components. Employee training and development will unlock the companies' profitability and reliability. When people, processes and technology work together as a team developing practical solutions, companies can maximize profitability and assets in a sustainable manner. Training and development is an investment in future success - give yourself and your employees the keys to success.

KLM Technology Group has a team of highly experienced associates in the USA, Malaysia, Indonesia and Singapore, that specializes in the practical application of knowledge. Our team leaders are all degreed engineers and typically have over twenty years of specialized chemical industry experience. Assisting the team leaders are young degreed engineers and practical application specialist with many years of applicable experience.

Speaker- Karl Kolmetz

Karl Kolmetz is a Senior Technical Engineering Professional / Managing Director at KLM Technology Group. He is the Editor for Engineering Practice Magazine and the Handbook of Process Equipment Design. He has authored more than 140 publications on a variety of subjects for product recovery, troubleshooting, training, project management, process design, process safety management and simulation with safety and environmental focus. His research interest focuses on how to apply the fundamentals of engineering to practical applications. The Handbook of Process Equipment Design has over 100 chapters on a variety of process equipment including, line sizing, pumps, compressors, relief valve, lares, separators, distillation and others

TWIN 2 ½ DAY CONFERENCE

Session One - 30th Sept, 1st, 2nd Oct (Morning) Session Two - 2nd (Afternoon), 3rd, 4th Oct

Course Overview

Course Outline Session One

Course Outline

Session Two

What You Can Expect to Gain

Who Should Attend

This course is an advanced class on distillation which is a major unit operation for most processing plants; Ammonia Plants, Refineries, Ethylene Plants, EB/Styrene Plants, EG/EO Plants, Methanol Plants, Gas Processing Plants, Palm Oil Plants, Sulphuric Acid Plants, Butadiene, BTX, Solvents and others.

Introduction Plant Distillation Overview General Column Design Column Design and Operation

- Tray Column Design and Operation
- Packed Column Design and Operation
- Optimizing Columns for improved operation and maintenance
- Conducting a High Load Test
- Operating columns in fouling service
- Operating columns in vacuum service
- Operating columns in quench service
- Separation Concepts
- Simulation Software Review
- Multi-Effect Distillation

Thermodynamics and Equilibrium

- Vapor Liquid Equilibrium
 - Stages & Transfer Units Efficiencies
- Stage Efficiency
- Process Control
 - Distillation Column Control
 - Typical controlled and manipulated process variables
 - Controller Performance Criteria
 - Feed Forward Control of an Ideal Process
- Commissioning
 - Tower Pre Commissioning Guidelines
 - Tower Start Up Guidelines
 - Tower Shut Down Guidelines
- Troubleshooting
 - Introduction
 - Installation
 - Case Studies
- The operation, control and trouble shooting of a distillation column and its associated equipment,
- An overview of distillation, practical solutions as well as theory
- An understating of essential distillation concepts,
- Valuable practical insights for trouble free design and field proven techniques for commissioning, start up and shutdown of distillation operation.
- The fundamental knowledge of distillation control.
- To tailor your approach to specific design, analysis and troubleshooting problems.
- People who are making day to day decisions regarding operation, design, maintenance, and economics of process industry plants.
- Engineer, chemist or operations personnel who must troubleshoot and solve distillation problems in a plant, an engineering office or laboratory.
- Plant Operation Support Engineers / Operations Staff checking plant performance under different operating conditions, and who are involved in design of new facilities or revamps of existing facilities.
- Ideal for veterans and those with only a few years of experience who want to review or broaden their understanding of process safety.
- Other professionals who desire a better understanding of the subject matter.

2 ½ Day Course

Session One - 30th Sept, 1st, 2nd Oct (Morning) Session Two - 2nd (Afternoon), 3rd, 4th Oct

Cost per 2 ½ Day Course

- Middle East USD 1500
- Malaysia RM 2000
- Singapore SGD 1000
- Thailand BAHT 15,000
- Indonesia IR 7.5 million

Method Of Payment

- Please kindly complete and return the reply form.
- Kindly email for Stripe and Bank details.
- 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.

A) The organizer 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 and of the course

Advanced Distillation Operation, Control and Troubleshooting

Registration Form





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