

#### 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.





Mr. Karl kolmetz *Managing Director* 

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.

#### **COURSE OVERVIEW**

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. Once the fundamentals are established the session moves into the topics of troubleshooting techniques, analysis, and problem solving.

# **COURSE OUTLINE**

- Introduction
- Introduction to Troubleshooting
- Crude Oil
- Refining Products
- Refinery Unit Flowsheets
- Refinery Furnaces
- Boilers and Steam Systems
- Steam Turbines, Pumps and Compressors
- Refinery Distillation
- Piping and Heat Exchangers
- Process Control Systems
- Desalter Systems
- Process Optimization

### WHAT YOU CAN EXPECT TO GAIN

- The Refinery 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
- Distillation concepts and troubleshooting
- Process Control guidelines
- Refinery, Furnace and Distillation Case Studies
- Troubleshooting Concepts

#### WHO SHOULD ATTEND

- People who are making day to day decisions regarding operation and economics of processing plants.
- 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.

# **Registration**

on each section of the processes.

- All sessions of this unique course online
- Live interaction options between the delegates and trainer
- Available via mobile, tablet or laptop

### Join The Event

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Technology Group

KLM Technology Group welcomes you and your team to our 2022 training courses. Since 1997, KLM Technology Group has been providing engineering, operations, and maintenance support for the hydrocarbon processing industry and we have been fortunate to help train over 1500 people in our courses. Thanks for your help and support over the years. We have courses in Refining, Ethylene, Polymers, Natural Gas Processing, and Ammonia as well as a course

- We have courses in unit operations such as Mass Transfer / Distillation, Reaction, Heat Transfer, RV and Flaring Systems, Product Loading and Storage, as well as troubleshooting on each of the subjects.
- We have courses in Process Safety such as PHA / HAZOP, Incident Investigation, LOPA, MOC, Auditing, and Risk Management. We have courses on building operational excellence, project management and some for nontechnical professionals
- We can provide courses online, at your facility in-house, as well as regional conferences. We can custom build
  courses for your team. Our list of course offerings can be found here; <a href="http://www.klmtechgroup.com/Training.htm">http://www.klmtechgroup.com/Training.htm</a>
- The 2022 Online Training Calendar can be found here; http://www.klmtechgroup.com/Training-2022.htm