

<p style="text-align: center;">KLM Technology Group</p> <p>Practical Engineering Guidelines for Processing Plant Solutions</p>		<p style="text-align: center;">Page 1 of 4</p> <p style="text-align: center;">Rev 3.0</p>
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Benchmarking and Evaluating Process Unit Operations

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

It is strategically important that your operations team understands the fundamentals of process unit operations concepts. This is the difference between being in the best quartile of operational ability and being in the last quartile. There is vast difference in the operational ability of operating companies and most benchmarking studies have confirmed this gap in operational abilities.

Whether you have a team of new or seasoned employees, an introduction or review of these concepts is very beneficial in closing the gap if you are not in the best quartile, or maintaining a leadership position. Most studies show that a continuous reinforcement of best practices in operational principles is the most effective way to obtain the desired results. Training and learning should be an on going continuous life long goal.

**#02-12 Block Aronia
Jalan Sri Perkasa 2
Taman Tampoi Utama
81200 Johor Bahru, Malaysia**

**Phone + 60 07-421-8396
Email: info@klmtechgroup.com
Internet: www.klmgtechgroup.com
Internet: www.kolmetz.com**

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Course Objective

This course will guide the participants to develop key concepts and techniques for the Benchmarking and Evaluating Process Unit Operations. These key concepts can be utilized to make operating decisions that can improve your unit's performance.

Many aspects of process unit operations and management can be improved including, product recoveries, purities and energy utilization, and safety. This cannot be achieved without first an understanding of basic fundamental principles of design and operation. These principles need to be understood in advance of operating and trouble shooting a process unit operation for the manager or problem solving to be effective.

This seminar focuses on the core building blocks of the process unit benchmarking and evaluating utilizing economic principles.

Outline

Introduction

- Overview of the Chemical Processing Industry

Review of Process Incidents

- Safety for the Chemical Processing Groups

Introduction to Process Equipment

- Distillation
- Absorption
- Heat Exchange
- Reactors
- Pumps
- Compressors
- Furnaces

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Refining Margins

- Refinery Operating Costs
- Refinery Profit Margins
- Conversion Unit Processing Costs
- Relative Value of Crude Oil versus Products
- Refining Process Capital Costs

Who Should Attend:

- This program has been designed for non-technical professionals assigned to positions in petroleum refineries, corporate offices, suppliers and other interrelated companies.
- The content of the program is based upon the assumption that those in attendance do not have a formal education in engineering and chemistry and do not work in highly technical environments.
- Attendance at this course will be beneficial to support personnel such as
 1. Environmental professionals,
 2. Accountants,
 3. Business managers,
 4. Administrative and legal staff,
 5. Sales and marketing personnel
 6. Insurance representatives,
 7. Personnel managers,
 8. Financial professionals, and
 9. Government officials.
- The program should be used for newly-hired refinery plant personnel and may serve as a prerequisite for those who do not have a technical background but who want to attend the more detailed petroleum refining processing program for technical professionals.

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- Ideal for veterans and those with only a few years of experience who want to review or broaden their understanding in Processing Plant Operations.
- People who have technical or refinery background should consider attending our alternated program - Introduction to Petroleum Refining Processes and Economics
- Other professionals who desire a better understanding of subject matter

What you can expect to gain:

- An overview of refinery operations, safety, processes and economics
- Become familiar with the equipment of a refinery
- Become familiar with the refinery flow sheets
- Become familiar with refinery margins and economics

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