



PE101: Advanced Gas Processing Applications





Training Description:

It typically takes several years for young university graduate engineers to master practical methods used in the process industry to solve problems. Gas condensate Layout/Design and Operations Development Practices is an intensive course for young process engineers to bridge the gap between university education and practical process design and troubleshooting in a short time of five days. After participating in the course, participants will know the most important layout/design practices and will be able to perform the necessary calculations to design and troubleshoot process units.

The course will be interactive involving all participants. The CMCT well experienced instructor illustrates the concepts with examples from his practical experience that he weaves into his lectures appropriately.

Training Objective:

By the end of the training, participants will be able to:

- ✓ Vaporizer and steam drum heat balance
- ✓ Design pressure, temperature and flange class for all equipment in Stripper system
- ✓ Size all pipes and nozzles in Stripper feed circuit and list hydraulic cases
- ✓ Pressures at all points between a high and low-pressure separator
- ✓ Size the Stripper feed flow meter, and permanent pressure drop
- ✓ Steam consumption in ejector
- ✓ Flashing liquid flow rate through a hole in a vessel
- ✓ Control valve size in the Stripper feed circuit
- ✓ Size and layout of recycle compressor suction drum
- ✓ Feed drum elevation from pump NPSH
- ✓ Feed pump motor size
- ✓ Compressor head, horsepower and outlet temperature
- ✓ Number of Stripper feed-bottoms exchangers
- ✓ Relief loads for the following cases; Fire case, Blocked liquid outlet, Inlet control valve fails open, Steam reboiler tube failure, Fractionator power failure and how the results can be quickly checked for relative accuracy

Training Designed for:

This course is intended for all managers, section heads, team leaders, supervisors and engineers in the field of chemical, process, operation, production, maintenance, mechanical and layout/design. This course is also suitable for operators and technicians who wants to gain knowledge and involved in operation and design in processing unit.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ Physical properties of hydrocarbons
- ❖ Qualitative phase behavior



DAY TWO:

- ❖ Vapor-liquid equilibrium
- ❖ Water-hydrocarbon equilibrium
- ❖ Basic thermodynamic concepts

DAY THREE:

- ❖ Separation equipment
- ❖ Heat transfer
- ❖ Pumps

DAY FOUR:

- ❖ Compressors
- ❖ Refrigeration
- ❖ Fractionation/distillation

DAY FIVE:

- ❖ Glycol dehydration
- ❖ Adsorption dehydration
- ❖ Course Conclusion
- ❖ POST-TEST and EVALUATION

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request”.

Please note that the above topics can be amended as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant’s manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.





Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department

