



FE149: Piping Mechanical Design & Specification

Training Description:

This intensive training course for engineers and piping system designers reviews the key areas associated with the design of piping systems for oil and gas facilities. The training course is focused on four areas: **codes and standards, pipe materials and manufacture, piping components, and piping layout and design.** Applicable piping codes for oil and gas facilities (ISO, B31.3, B31.4, B31.8, etc.), pipe sizing calculations, pipe installation, and materials selection are an integral part of the course. The emphasis is on proper material selection and specification of piping systems.

Training Objectives:

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

- ✓ Apply piping system codes and standards
- ✓ Learn about line sizing and layout of piping systems in various types of facilities
- ✓ Know how to specify proper components for process and utility applications
- ✓ Compare alternative materials of construction
- ✓ Learn the process of steelmaking, pipe manufacturing, and material specifications
- ✓ Learn the Joining methods and inspection techniques
- ✓ Key considerations for flare and vent systems, including PSV sizing

Training Designed for:

This course is intended for ideal for mechanical, facilities, plant, or pipeline engineers and piping system designers who are involved in the design of in-plant piping systems for oil and gas facilities.

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."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

FIVE DAYS:

- ❖ Piping codes and standards (ANSI/ASME, API, ISO)
- ❖ Pipe materials and manufacturing
- ❖ Basic pipe stress analysis methods
- ❖ Valves and actuators
- ❖ Welding and non-destructive testing
- ❖ Line sizing basics (single-phase and multiphase flow)
- ❖ Pipe and valve material selection
- ❖ Piping layout and design
- ❖ Manifolds, headers, and flare/vent systems
- ❖ Non-metallic piping systems
- ❖ Operations and maintenance considerations of facilities and pipeline

- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

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, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

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

Training Fees:

TBA 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 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

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

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