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Course: ASME B31.3 PROCESS PIPING

Code	City	Hotel	Start	End	Price	Language - Hours
813	London (UK)	Hotel Meeting Room	2025-08-25	2025-08-29	5950 €	En - 25

PROGRAMME SUMMARY

This course provides an introduction to the ASME B31.3 Process Piping Code. It covers the requirements of B31.3 for design, analysis, materials, fabrication, testing and inspection of process piping systems.

It explores the rules for various components including fittings, connections, bends, valves and specialty components. Other topics include dimensions and ratings of components, fluid service requirements for joints, piping flexibility and support, welding, heat treatment, bending and forming, brazing and soldering, assembly, erection, examination and inspection.

OBJECTIVE

- The aim of this comprehensive training course is to provide the delegates with enough knowledge and skills about process piping related ASME B31.3
- Identify the design of piping flanges and blanket
- Welding and Brazing Qualification, procedures Specifications
- Explain the Fabrication, Assembly, and Erection and identify the required inspection and testing Define hydrostatic pressure and hydrostatic-pneumatic tests
- Receive the enough information about the Fluid Service Requirements for Materials
- Explain of nonmetallic piping design, Fluid Service Requirements, inspection and testing
- Employ pre and post weld heat treatment and identify the Charpy impact testing

WHO SHOULD ATTEND

- QA/QC inspectors
- Maintenance Engineers
- Inspection & testing professionals
- Fabrication Engineers
- QA/QC reliability professionals for oil and gas (Petrochemical and Refining) operations
- Fresh graduates, piping engineers and designers

Outline

Introduction and history of ASME codes:-

- Scope and Definitions
- Content, Coverage and Exclusions
- Design include Design Pressure, Design Temperature
- Listed Components Unlisted Components
- Allowances for Pressure and Temperature Variations
- Allowable Stresses and Other Stress Limits
- Bases for Design Stresses
- Casting Quality Factor, Ec and Weld Joint Quality Factor, Ej
- Pressure design of components
- Branch Connections
- Pressure Design of Flanges and Blanks
- Fluid service requirements for piping components and piping joints

Flexibility and support:-

- Chapter iii materials
- Listed Materials, Unlisted Materials. Unknown Materials. Reclaimed Materials.

- Lower Temperature Limits
- Impact Testing Methods and Acceptance Criteria
- Fluid Service Requirements for Materials

Chapter IV Standards for Piping Components

- Chapter V Fabrication, Assembly, and Erection
- Welding and Brazing Qualification, procedures Specifications.
- Preheating
- Heat treatment requirements
- Bending and forming
- Assembly and erection
- Chapter VI Inspection, Examination, and Testing:-
- Responsibility and qualifications for Inspection and examination
- Extent of Required Examination
- Radiographic and Ultrasonic Examination
- Testing Required Leak Test
- Hydrostatic Leak Test
- Pneumatic Leak Test
- Hydrostatic-Pneumatic Leak Test

Chapter VII Nonmetallic Piping and Piping Lined with Nonmetals:-

- Pressure design of piping components
- Fluid service requirements for nonmetallic materials
- Materials general requirements
- Fabrication, assembly, and erection
- Inspection, examination, and testing
- Chapter viii piping for category M Fluid Service

Chapter IX High Pressure Piping:-

- Chapter X High Purity Piping

- Review codes appendix
- Review of codes tables

The Scandinavian Academy for Training and Development employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:

- **Theoretical Lectures:**
  - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
  - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
  - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
  - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
  - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
  - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
  - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
  - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
  - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
  - Training programs are held from 10:00 AM to 2:00 PM and include coffee break sessions during lectures.