PD785
ASME BPV Code: Section VIII, Division 1: Construction of Pressure Vessels

Day 1
Module 1 - ASME and the B&PV Code
- Introduction to ASME Code and Section VIII
- The ASME “system”
- Relation to the European regulation (PED)

Module 2 – Introduction to Sect. VIII, Div. 1
- Content and overview of Section VIII-1

Module 3 – Materials
- Materials Requirements
- Material Identification and Traceability

Module 4 - Design Principles
- General Design Issues
- Design Conditions
- Allowable stresses
- Introduction to stresses
- Design for Cylindrical & Spherical Shells under External Pressure

Day 2
Module 5A: Design – Shells under Int. Pressure
- Design of Formed Heads

Module 5B: Design for Buckling
- General Issues
- Cylindrical Shells under Axial Compression
- Design of Cylindrical Shells under External Pressure
- Design of Ring Stiffeners
- Design of Spherical Shells under External Pressure
- Design of Conical Shells under External Pressure
- Design of Formed Heads under External Pressure
- Alternative Buckling Rules

Module 5C: Design for Flat Heads
- Design of Flat Heads and Covers

Module 5D: Design for Openings
- Openings and Reinforcement
Module 6 – Fabrication
  • Fabrication Requirements

Day 3

Module 7 – Examination, Inspection, & Testing
  • Inspection and Tests
  • Marking and Reports
  • Overpressure Protection

Module 8 – Welding Requirements
  • General Requirements
  • Design of Welded Joints
  • Fabrication
  • Examination & Inspection

Module 9 – Material Class-specific Requirements
  • Parts of Subsection C
  • Requirements for Carbon and Low Alloy Steels
  • Requirements for High Alloy Steels
  • Code Appendices