

PD665

ASME BPV Code, Section I: Rules for Construction of Power Boilers

Day 1

- **Module 1: Introduction to the ASME Boiler & Pressure Vessel Code and Section I**
 - Introduction to the ASME B&PVC
 - Organization and Scope of Section I
 - Interpretations
 - Use of Section VIII Vessels in Section I
 - Boiler Proper Piping and Boiler External Piping.
 - Enforcement of Section I; Third Party Inspection
 - International Acceptance
 - Code Cases, Inquiries, Interpretations, Code Effective dates, & Revisions

- **Module 2: Materials in Section I**
 - Code Inquiries and interpretations; Code Cases
 - Materials of Section I Construction, including the setting of allowable stresses
 - Material considerations for supercritical and Ultra supercritical boilers
 - Using Section II Finding and using Design Stresses in Section II Part D
 - Use of Non-ASME Material Specifications and material not fully identified
 - Standard Pressure Parts; Valves and valve ratings; Safety Valves
 - Non-pressure Part Materials
 - Material Test Reports
 - Guidance on use of Old Materials

Day 2

- **Module 3: Design in Section I**
 - Design Methods of Section I
 - Selection of design temperature and pressure for boilers and piping
 - Design considerations for supercritical and ultra-supercritical boilers
 - Alternative Design formulas for Section I and their advantages/disadvantages
 - Loads considered by Section I
 - Other Loads

Day 3

- **Module 4: Fabrication in Section I**
 - Alignment of Weld Joints in Pressure Retaining Parts
 - Qualification of Weld Procedures; Selection of Weld Procedures for Construction
 - Weld Size Requirements of Section I; Nozzle and Other Opening Rules for Welding
 - Nondestructive Examinations Requirements
 - Visual Inspection Requirements
 - Preheating and Interpass Temperature Requirements
 - Postforming Heat Treatment of Cold-Bent Materials
 - Postweld Heat Treatment
 - Repairs to Welds
 - Hydrostatic Testing

- **Module 5: Quality System and Certification in Section I**
 - Quality Control System and Manual requirements
 - Code certification by stamping and data reports
 - Various Code Symbol Stamps and what they cover
 - Codes Applicable for boilers and pressure vessels in service
 - Repairs and alterations under the National Board Inspection Code
 - ASME Code edition applicable to repairs and alterations