PD665
BPV Code, Section I: 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

- Non pressure part materials
- Guidance on use of old materials

Day 3

- **Module 4: Fabrication in Section I**
  - Alignment of weld edges 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
  - Post Weld 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
  - Upcoming changes to ASME Section I