

EL542

BPV Code, Section III, Division 1: Class 1 Piping Design

- Module 1: Introduction and Objectives
- Module 2: Overview of the ASME Boiler and Pressure Vessel Code
 - Structure, goals and objectives of the ASME Boiler and Pressure Vessel Code
 - Relationship of Section III to other sections of the ASME Boiler and Pressure Vessel Code
 - Relationship of NB-3000 to the other sections of the Code
- Module 3: Code Requirements for Class 1 Piping Design Specifications
 - Key individuals and organizations and their responsibilities
 - Service levels and the protection provided by service levels
 - “Typical” applied loads considered in design
 - Certification requirements and responsibilities
 - Analysis methods
 - Loads to consider
 - Static analysis
 - Dynamic analysis
 - RSMA (Response Spectra Modal Analysis)
 - Modal coordinates
- Module 4: Class 1 Piping Design by Rule (NB-3600)
 - Class 1 Piping Design by Rule methods
 - Class 1 pipe supports design requirements
 - Individual piping component design requirements
 - Design a simple Class 1 piping system
 - “Non-Code” but related nuclear piping design issues
- Module 5: Related Nuclear Piping Design Issues
 - Miscellaneous Topics
 - Test loads, flanges and bellows
 - Flexible hoses and other items
 - Integral welded attachments
 - Support design - Subsection NF
 - Noncode Issues
 - Break locations
 - Depressurization loads, jet impingement and pipe whip
 - Functional capability and other issues
- Module 6: Class 1 Piping Design by Analysis (NB-3200)
 - Class 1 piping design by analysis methods
 - Design a simple Class 1 piping component
 - Differences between Class 1 piping design by rule and Class 1 piping design by analysis
- Summary and Closure