



EL524

BPV Code, Section III: Advanced Design and Construction of Nuclear Facility Components

Day 1

Module 1: Regulatory Requirements & Section III

- Overview of Nuclear Power Generation
- US NRC Regulation
- 10CFR 50.55 , 10CFR 21 & Appendix B of 10CFR 50 & NQA-1
- NRC Regulatory Guides 1.28, 1.84, 1.85
- Overview and organization of Section III of ASME B&PV Code
- NCA – General Requirements
- Subsections NB, NC, ND, NE, NF, NG, NH
- NQA-1 Quality Assurance

Module 2: NCA-3800 & NB-2000 – Material Organization and Requirements

- Material requirements and control
- Nuclear requirements
- N-Certification
- Responsibilities of Material Organizations
- Control
- Organization of Section II

Day 2

Module 3: NB-3000 Design

- Part 1 Introduction and Thin Shell
- Part 2 Stress

Day 3

Module 3: NB-3000 Design

- Part 3 Vessel & Piping Design
- Part 4 Piping Analysis

Day 4

Module 3: NB-3000 Design

- Part 5 Valve & Pump Design; NF/NG/NE

Module 4: NB-4000 & NB-5000 – Fabrication, Examination and Testing

- NB-4000 and NB-5000
- Welding Requirements and Qualification
- Heat Treatment Requirements
- Non-Destructive Examination
- Testing - Hydro test and Leak test Requirements