Overview of Vessels and Piping Codes

Potential PDH: 24

Description:

Overview of ASME Boiler and Pressure Vessel Codes; Overview of ASME B31 Pressure Piping Codes; and Overview of nuclear regulations related to ASME Codes

Outline:

ASME B31.1 Power Piping and B31.3 Process Piping

- What is covered and what is not
- Which Code applies where
- Materials requirements
- Design requirements
- Fabrication requirements

ASME III Div.1 Nuclear Components

- What is covered and what is not
- Safety classification Class 1-2-3
- Materials requirements
- Design requirements Class 1
- Design Requirements Class 2-3
- Fabrication requirements

ASME III Div.5 High Temperature Reactors

- Overview
- Subpart B elevated temperature service
- Introduction to creep damage
- Materials requirements
- Design requirements
- Fabrication requirements

ASME VIII Div.1 Construction of Pressure Vessels

- What is covered and what is not
- Which Code applies where
- Steel vessels materials requirements

- Steel vessels design requirements
- Steel vessels fabrication requirements

ASME VIII Div.2 Alternative Rules

- When to choose Div.2
- Protection Against Plastic Collapse
- Protection Against Local Failure
- Protection Against Collapse from Buckling
- Protection Against Failure from Cyclic Loading

Subject Matter Expert (SME):

Mr. George Antaki, PE, fellow ASME, chief engineer Becht Nuclear Services. Mr. Antaki has over 43 years of experience in the nuclear industry, starting as an engineer at Westinghouse in 1975. He is chairman of ASME III Working Group Piping Design, member of ASME III subgroup Component Design, and several ASME XI task groups. He is an ASME instructor and is the author of several textbooks on ASME components: "Piping and pipeline Engineering" (M. Dekker); "Fitness-for-Service and Integrity of Piping, vessels, and Tanks" (McGraw-Hill), and Nuclear Power Plant Safety and Mechanical Integrity: Design and Operability of Mechanical Systems, Equipment and Supporting Structures (co-author.)