MC110
Bases and Application of Piping Flexibility Analysis to ASME B31 Codes

Day 1

- Review of Design Criteria and Piping Analysis Requirements
    - History of Piping Code Requirements
    - Analysis options advantages of different approaches

- Basic of Analysis Modeling Assumptions
    - Design for Friction versus including in analysis model
    - Significance of Calculated Stresses
    - Significance of Calculated Loads and Load Cases
    - Interface with equipment and other piping systems

- Parameters Affecting Interface Loads
    - Anchor Stiffness
    - Support Stiffness and Gaps
    - Expansion Joints
    - Non-linear restraints and boundary conditions

- Detailed Review of Design Analysis Outputs

Day 2

- Design Procedure
    - Expansion joints in analysis and hand calculations
    - Procedures and techniques for checking piping analysis
    - Importance of control points in piping models
    - Truly checking analysis vs. stopping when you get the answer you want to hear

- Worked Examples
    - Large diameter models
    - Small piping and decoupling methods
    - SIF and Flexibility factors
    - Evaluating sensitivity of models

- Summary and Wrap-up