MC114
Repair Strategies and Considerations for Pressure Vessels and Piping

Day 1

- Overview of Existing Industry Documents
  - Construction Codes (ASME, API)
  - In-Service Standards (API)
  - Post Construction Codes (ASME PCC-2, etc.)
  - Jurisdictional Standards (NBIC-23)
  - API 579-1/ASME FFS-1
  - Owner-User Best Practices

- General Approach to Evaluations/Repairs
  - Understanding the damage (why do you need to repair? when is it better not to repair?)
  - What loads need to be considered? How would the component fail?
  - NDE and inspection considerations
  - Considering the risks
  - How to make the run/repair/replace decisions
  - How does the repair fit into the overall life cycle management process for the equipment?

- Welded Repairs and Non-Welded Repairs
  - ASME PCC-2 Overview
  - NBIC Details and Options
  - Post Weld Heat Treat considerations
  - “Old” versus “New” pressure vessels
  - Welding considerations

- Alternatives to Repairs/Optimization of Repairs
  - API 579-1/ASME FFS-1
  - Use of analysis to minimize repairs and/or minimize risks associated with repairs