MC113
Techniques and Methods used in API 579-1/ASME FFS-1 for Advanced Fitness-For-Service (FFS) Assessments

- Overview of API 579-1/ASME FFS-1 through Examples
    - Review of the FFS Assessment Levels
    - How to Select an FFS Assessment Levels and "Best-Buys"
    - Examples of Volumetric Damage, Crack-Like Flaws, Creep Damage
    - Insights into API 579-1/ASME FFS-1, 2016 Edition

- Harmonization of API 579-1/ASME FFS-1 and ASME, Section VIII, Division 2
    - Life-Cycle Management Overview for Fixed Equipment
    - API 579-1/ASME FFS-1 Annex B1, B2, B3, and B4 and ASME Section VIII, Division 2
    - Fatigue Assessment Methods
    - Examples

- Background to Development of Volumetric Damage Assessment Methods
    - General Metal Loss
    - Local Thin Areas
    - Pitting

- Background to Development of Crack-like Flaw Assessment Methods
    - Stress Intensity Factor and Reference Stress Solutions
    - Failure Assessment Diagram
    - Fracture Toughness Estimation
    - Residual Stresses
    - Numerical Examples

- Remaining Life Estimation for High Temperature Components
    - MPC Project Omega – Why it Works
    - Fired Heater Tubes
    - Complex High Temperature Components
    - Numerical Examples