

Course Content

Title: ASME III and ASME XI Design, Integrity Assessment, and Repair

Potential PDH: 32

Code: BTT039

Description:

To learn the methods and criteria for the design (ASME III), integrity assessment and repairs (ASME XI) of nuclear plant pressure equipment and piping systems. To understand the historical and technical basis of the Code requirements, and to apply them in case studies. To review the regulatory requirements applicable to safety-related integrity assessments and repairs.

Outline:

Topics includes:

1. Brief background of code
2. Brief overview of ASME code
3. Design and description class 1/2/3
4. Stress analysis of class 2/3 components
5. Basis for allowable stresses
6. Code stress analysis methods
7. Design by analysis
8. Fatigue analysis differences between class 1 and class 2/3 piping evaluations
9. Design rules for class 1 vessels
10. Design/analysis of class 2/3/MC vessels
11. Design specification and service limits
12. Stress report/Design reports
13. Documentation of Code materials
14. Code reconciliation requirement
15. Integrity assessment overview
16. Assessing wall thinning in nuclear piping
17. Code Cases N-513, N-597 wall thinning
18. Code Case N-806 buried pipe
19. Assessing crack-like flaws per ASME XI
20. Assessing overloads
21. Repairs safety and non-safety related piping

Instructor:

Mr. George Antaki, PE, Fellow ASME, Becht Engineering, Aiken SC USA, has over 43 years of experience in design, qualification, fabrication, trouble-shooting, fitness-for-service, and repairs of ASME pressure equipment and piping systems. He is past vicechairman of API 579/ASME FFS joint committee, and past member of ASME PCC-2. He is currently member of several ASME Code Committees, and a master instructor for ASME. He is the author of three textbooks on integrity and repairs of pressure equipment and piping systems.