

**Course Content**

**Title** Fitness-for-Service of Degraded and Damaged Tanks, Vessels, and Piping Systems in Accordance with API 579-1/ASME FFS-1, and Repair Options in Accordance with ASME PCC-2

**Code:** 30773      **Code ID:** EEC030      **No of Days:** 5.0      **PDH:** 24      **Fee:** \$1,800.00

**Schedule:** 5/17/2021 to 5/21/2021      **Start Time:** 8:00 AM CDT      **End Time:** 2:00 PM CDT

**Venue** Virtual Training - GoToTraining

**Description:**

The course will cover perform fitness-for-service (FFS) assessment of aged and/or damaged tanks, Vessels and piping systems, in accordance with API 579-1/ASME FFS-1 - using case studies. Make run-or-repair decisions, in accordance with API 579-1/ASME FFS-1. Understand the technical and historical bases of the API 579-1/ASME FFS-1 methods and criteria Repair Options (ASME PCC-2, API-653, NBIC NB-23): If repair is necessary, select the repair, in accordance with ASME PCC-2 and compare to other repair standards (API and NBIC).

**Outline:**

1. Introduction
2. Procedure
3. Brittle Fracture
4. General Metal Loss
5. Local Metal Loss
6. Pitting Corrosion
7. Hydrogen Blisters HIC-SOHIC
8. Weld Misalignment Shell Distortion
9. Crack-Like Flaw
10. Creep Damage
11. Fire Damage
12. Dents and Gouges
13. Laminations
14. Fatigue Damage
15. Waterhammer (included in Part 14 of API 579-1)
16. Flow-Induced Vibration (draft Part 16 API 579-1)

ASME PCC-2 Repair Methods  
ASME PCC-2 Welded Repairs  
ASME PCC-2 Mechanical Repairs  
ASME PCC-2 Non-Metallic Repairs

**Instructor:**

George Antaki, PE, Fellow ASME, is chairman of ASME III Working Group Piping Design, chairman of ASME B31 Mechanical Design Committee, and member of ASME O&M Subgroup Piping. He started his career at Westinghouse in 1975 and has been involved in the design, analysis, qualification, start-up, and operational trouble-shooting of mechanical equipment throughout the industry. He is the author of three textbooks on the subject of mechanical integrity and fitness-for-service, and is an instructor for ASME.