

11-12 March 2026 | HERA – Manukau, Auckland

# API 579 FITNESS-FOR-SERVICE ASSESSMENT COURSE

Prolong asset life for pressurised  
plant equipment

**REGISTER  
TODAY**  
Places limited  
to 15

Sequence Engineering and HERA invite you to participate in an informative two-day training course that will cover the basis for assessment of pressure plant equipment for continued service and life evaluation in accordance with the API 579-1 / ASME FFS-1.

This course is designed to help plant owners make decisions on whether to run, repair or replace critical pressure equipment.

The procedures in API 579 give a comprehensive step-by-step approach to assessing damage of pressure equipment. The course participant will learn how to apply the basic procedures and learn to understand the order of the procedures. The learning will be reinforced by case studies and worked examples for all sections covered.

The course is designed to share the practical knowledge and experience gained for evaluation and inspection of pressure vessels, tanks and piping. Participants are encouraged to bring along real-world problems, and the best suitable approach to assess the fitness-for-service will be discussed.

**SEQUENCE** **HERA**

## WHO SHOULD ATTEND?

This course is for inspectors, plant engineers and engineering managers that are involved in operation and maintenance of plant facilities.

## ABOUT THE COURSE

This course examines step by step and in detail the contents of the API/ASME standard. Sessions are not necessarily equal in length. The main focus will be on some of the more commonly used sections in API 579.

The level of detail examined will be dependent of the requirements and experience of the participants.

Most case studies examined throughout the course will be pre-worked to improve productivity and maximise learning transfer through group discussion. However, there will be opportunities for participants to work through a number of limited problems individually and in group work.

Participants are encouraged to bring specific problems of interest to them to discuss during the course, to assist with problem solving and benchmarking against best practices and lessons learnt.

## LEARNING OBJECTIVES

- » Understand how to assess the fitness-for-service of the most common damage and flaws in accordance with API 579-1 / ASME FFS-1 2021
- » Review the information required for performing fitness-for-service assessments
- » Understand methods for life extension when damage is found
- » Evaluate the most common damage mechanisms and their significance
- » Review practical applications in case studies
- » Solve practical problems for each of the main sections covered in the course
- » Learn to document the assessment as required by most common standard or industry guidelines for fitness-for-service

### DAY 1

Introduction to FFS and API-579  
Part 3: Brittle fracture and material behaviour  
Part 9: Assessment of crack-like flaws  
Fatigue assessment  
Part 4: General metal loss  
Part 5: Local metal loss

### DAY 2

Part 6: Pitting assessment  
Part 7: Assessment of blisters and hydrogen damage  
Part 8: Misalignment and weld distortion  
Part 13: Lamination  
Part 10: Creep assessment  
Part 11: Fire damage  
Part 12: Environmental cracking

## ABOUT THE COURSE PRESENTER



**Dr Annette Karstensen.**  
Director for Structural Integrity  
at Sequence Engineering

Dr Annette Karstensen is an experienced fitness-for-service and fracture mechanics specialist with extensive expertise in structural integrity and remaining-life assessments across the power generation, oil and gas, petrochemical, and pipeline industries. A Chartered Engineer with the UK Engineering Council and Fellow of the Welding Institute (UK), she has over 30 years of practical experience. Her expertise includes high-temperature life assessment and the application of crack assessment procedures such as BS 7910 and API 579 to determine allowable crack sizes or time to failure. She regularly teaches fitness-for-service and fracture mechanics courses in Australia and internationally.

## Two Day Course Fees

Book before 13th February 2026 ..... NZ \$2,200.00 + GST

After 13th February 2026 ..... NZ \$2,500.00 + GST

Includes comprehensive course notes, lunch, morning and afternoon tea.

**To register for the fitness-for-service assessment course, [click here](#)**

For further information, please email [annette@sequence.engineering](mailto:annette@sequence.engineering)

## REGISTER NOW!

**Places limited to 15**

Book early to secure an  
\$300 early bird discount!