

THREE DAY COURSE

API 579-1 / ASME FFS-1

FITNESS-FOR-SERVICE EVALUATION

Learn how to successfully analyse, evaluate, and monitor pressure vessels, piping, and tanks for continued operation. Understand and apply the API 579-1 / ASME FFS-1 fitness-for-service standard in your daily work.

COURSE OVERVIEW

This three day course helps participants understand and apply the API/ASME fitness-for-service standard in their daily work.

The material presented in the course shows how the disciplines of stress analysis, materials engineering, and nondestructive inspection interact and apply to fitness-for-service assessment. The assessment methods apply to pressure vessels, piping, and tanks that are in-service.

The course includes an extensive set of notes to supplement the contents of the recommended practice, and the recommended practice contains numerous example problems that illustrate fitness-for-service assessment.

WHO SHOULD ATTEND?

This course is intended for engineers and engineering management engaged in the operation, design, analysis, and maintenance of plant facilities. Participants should have a Bachelor degree or equivalent experience in engineering. A general knowledge of stress analysis, materials behaviour, and fracture mechanics are helpful.

ADELAIDE: 10-12 FEBRUARY
PERTH: 17-19 FEBRUARY

WHAT IS IT?

Fitness-for-service assessment is a multi-disciplinary engineering approach that is used to determine if equipment is fit to continue operation for some desired future period. The equipment may contain flaws, have sustained damage, or have aged so that it cannot be evaluated by use of the original construction codes.

API 579-1/ASME FFS-1 is a comprehensive consensus industry recommended practice that can be used to analyse, evaluate, and monitor equipment for continued operation. The main types of equipment covered by this standard are pressure vessels, piping, and tanks.

KEY TAKEAWAYS

Attendees will learn how to successfully:

- Analyse, evaluate, and monitor pressure vessels, piping, and tanks for continued operation
- Explain how to apply background information on fitness-for-service assessment, especially as it applies to the refining and chemical process industries, which are the primary focus of API 579
- Identify the main parts of the API/ASME standard, as well as the annexes
- Explain the practical application of the techniques incorporated in API 579-1/ASME FFS-1



EXPERT FACILITATOR GREGORY BROWN



Gregory Brown PhD is the principal and owner of Blue Ring Engineering. He is a current voting member of the ASME/API Joint Committee on Fitness-For-Service. Dr Brown currently performs computational mechanics and fitness-for-service assessments for a variety of industries using API 579, as well as supporting litigation and failure analysis. He also develops specialised software and methodologies for structural analysis and life assessment. Previously Dr Brown was the Chief Engineer for TEAM/Quest Integrity.

Dr Brown joined Dr Ted Anderson in 2001 at Structural Reliability Technology, which later became part of the Quest Integrity Group. Prior to SRT, he developed algorithms to update industrial finite element models using experimental measurements and performed flutter analyses of F16 and F18 fighter aircraft. Dr Anderson, Dr Brown, and the engineers at Structural Reliability Technology performed much of the work that was incorporated into API 579.

QUESTIONS?

For further information about this course, please contact: Danielle Pennington on 0493 024 505 or d.pennington@weldaustralia.com.au

COST

- Weld Australia Members: \$3,610 inc GST
- Non Weld Australia Members: \$3,810 inc GST

Please note: in order for the course to go ahead, minimum attendee numbers must be reached. Payment is required at the time of booking. Cancellation four weeks prior to the start date will not be refunded.

A certificate of attendance will be issued by ASME

COURSE DETAILS

ADELAIDE

- Date: 10-12 February 2026
- Venue: Stamford Plaza
150 North Terrace, Adelaide 5000

PERTH

- Date: 17-19 February 2026
- Venue: TBC, in Perth CBD

- Registration first day: 8:00am
- Course time: 8:30am – 5:00pm

REGISTER NOW