FACT SHEET (SELF-GUIDED)

ASME PCC 2 | Repair of Pressure Equipment and Piping

ASME PCC-2: scope, organization, welded repairs, mechanical repairs, composite repairs, examination, and testing.

Who Should Attend?

This course is intended for graduates (or soon to be), designers, freelancers, technicians, and engineers involved in calculation, design, selection, manufacturing, safety, quality and maintenance of systems and equipment in industrial processes.

Previous knowledge of this subject is not required to attend to the course.

Training Objectives

The main objective of this course is to transfer to participants the theoretical and practical skills required to repair pressure equipment and piping. This knowledge has been obtained from experience and sound engineering practices.

At the end of the course, participants will have a clear vision of the requirements of these regulations.

What to expect?

Get familiar with the vocabulary, terminology, and fundamental concepts.

Learn the organization of the code, scope, and fundamental sections.

Benefit from lessons learned and best practices from different international projects.

At the end of this training participants will be able to define the main requirements necessary for the repair of pressure equipment and piping:

- PCC-2 Scope
- Main welded repairs
- Main mechanical repairs
- Nonmetallic composite repairs
- Examination and testing

Course Duration

The duration of this training course is **16 hours**, to be completed in 30 days. The Virtual Campus will be open for 90 days (flexibility).

Methodology

Self-guided, Hands-On Course

Available 24/7, Self-paced course

“Learn by doing” concept

Non-scheduled sessions

Instructor available during the entire course

Contents

Scope, organization and intent

Welded repairs

Butt-welded insert plates in pressure components

External weld buildup to repair internal thinning

Seal-welded threaded connections and seal weld repairs

Welded leak box repair

Welded "lip" seals

Full encirclement steel reinforcing sleeves, full fillet welded and non-fillet welded.

Fillet welded patches with reinforcing plug welds

Alternatives to traditional welding preheat

Alternatives to post weld heat treatment

In-service welding onto carbon steel pipelines

Weld buildup and weld overlay restoration, and clad restoration

Fillet welded patches

Threaded or welded plug repairs

Welded hot taps in pressure equipment and piping systems

Exercises and Case Studies

- *Assimilation test*

Mechanical repairs

Replacement of pressure components

Flaw excavation and weld repair

Metal removal process

Flange repair and conversion

Mechanical clamp repair

Hot bolting removal procedures

Half bolting removal procedures

Inspection and repair of shell and tube heat exchangers.

Exercises and Case Studies

- *Assimilation test*

Non-metallic and bonded repairs

Non-metallic repairs to piping systems: high risk applications

Non-metallic repairs to piping systems: low risk applications

Non-metallic internal lining for pipelines

Proposed case studies

- *Assimilation test*

Examination and testing

Pressure and tightness testing of piping and equipment

Non-destructive examination in lieu of pressure testing for repairs and alterations

Proposed case studies

- *Assimilation test*

Instructor

Senior Mechanical Engineer and master's in business administration (MBA). **More than 20 years of experience in design, calculation and fabrication of pressure vessels, heat exchangers, storage tanks, piping systems and structures in general.**

Duties of the above-mentioned positions cover the entire cycle of an equipment, **from the very conception, drawings, design and calculation, technical specifications, technical requisitions, vendor drawings, to the manufacturing phase and installation assistance**. Among the developed projects, clients such as SHELL, EXXON, REPSOL, CHEVRON, GALP, CEPSA, TUPRAS and SAUDI ARAMCO can be found.

Vast experience providing specific training sessions in both classroom and online methodologies. More than 75 training courses carried out in different institutions and in-company, courses oriented to graduates, designers, engineers and experienced professionals.

Tailored Training

The most effective training is one that satisfies the needs of each company's business focus and deliverables. **We adapt our training programs to each specific requirement, offering bespoke solutions for each need.** The result, 100% tailored programs, developed to maximize the time investment and deliver tangible and intangible returns to the work teams.

After an assessment phase, a tailored training plan is de-signed jointly with the client. This plan is specifically tailored to meet the client's needs, focusing on effectively enhancing the capabilities of the work team. **We provide practical, dynamic and hands-on training,** making available the best instructors in each subject.

Arveng Training

Arveng Training has developed effective and practical courses for the needs of today's industrial challenges by delivering specific and high-quality engineering training courses utilizing all three approaches: classroom, on-line and tailored training. We are proud to have imparted more than 250 classroom courses, 550 online courses and over 25 in-company sessions. Our training activities has benefited over 3,500 professionals. Our greatest pride is in the letters of recommendation we receive from so many of our customers in this area.

We consider the time of our students as the most valuable. For this reason, all our courses have been designed with the main objective of quickly the professional skills of the participants, through our expert instructors in different disciplines. **We stimulate creativity, innovation and initiative to make the participants inquisitive to bring good engineering practices and lessons learned to the field that benefits their employers in the long term.**

Our Company

Arveng Training & Engineering SL is a leading company providing Training and Engineering services based in Madrid, Spain. Our mission and vision are to be a leading training and engineering services company. We are a team of highly motivated, talented high qualified professionals with more than 20 years of experience. Our main goal is to provide our clients, the best training and engineering services and to exceed their expectations in all their spheres of industrial activity, through our renowned services which are based on efficient, innovative, cost-effective and transparent principles.

Established in July 2010, mainly oriented to the industrial sector, from the very beginning Arveng has always worked with closeness, responsibility and commitment in the different areas of activity.