



2KG TRAINING

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ASME Code, Section VIII, Division 2: CONSTRUCTION OF PRESSURE VESSELS

Presenter: Fahim Shadid

ABOUT THE PRESENTER: FAHIM SHADID



Fahim Shadid, P.E has BS degree in Mechanical Engineering and MS degree in Engineering Mechanics.

He has over 30 years of experience in the design, analysis and fabrication of pressure equipment and special structures including refinery turnarounds. He presently performs consulting services to the pressure vessels industry.

He is a member of the ASME Code Subcommittee VIII. He has extensive experience applying the ASME Codes Sections VIII Divisions 1 and 2, Sections II-A & D, NBIC, API 510, API 579 and international codes.

His work included training of new Engineers. He has 3 patents in applicable areas. His work included domestic and many international locations. He also worked with EPC companies preparing FEED and EPC documents for several projects.

Number of days: 3

CPD Points: 3

Live Virtual Classroom

2KG Training Live Virtual Courses offer participants the same instructors, training systems, course materials, personal support, and face-to-face engagement with instructors and other participants that they would expect to find in a conventional classroom.

The API 650 & 653 Advanced Storage Tanks Live Virtual Course brings participants together in a virtual classroom, where they receive training from an expert via a live video link. Participants are interconnected via audio and video, enabling them to interact both with the instructor and with their classmates. Learners can speak to their instructor at any time to ask questions, request assistance, and instructors can provide hands-on support.

Description

ASME Section VIII, Division 2 was totally re-written and employs state-of-the art design, analysis and fabrication rules. As a result, the design margins have been reduced and the required thickness for vessel components is less than that for Division 1. This can result in substantial saving in the cost of materials and fabrication. The more restrictive fabrication and NDE rules, however, will result in a slight offset in the fabrication costs.

This introductory course is a comprehensive introduction to the requirements and application of the alternate rules of Section VIII, Division 2 of the ASME Boiler & Pressure Vessel Code.

It covers background, organization, design, materials, fabrication, NDE requirements, toughness, testing and documentation of pressure vessels.

It explains the theories of failure, the design and construction differences between the new Class 1 and Class 2 vessel types and the use of higher design margins

It provides a detailed discussion making these concepts easier to grasp. It prepares participants for topics such as design by rule, design by analysis, fatigue analysis screening procedures and fitness for service leading to a broader understanding and mastery of these concepts.

Who Should Attend

Individuals involved with design, analysis, fabrication, purchasing, repair, and inspection of pressure vessels, as well as supervisory and regulatory personnel. Some degree of technical background will be helpful, but such individuals are not required to have an Engineering degree or previous work experience in the subject matter. Both beginners and experienced personnel involved with pressure vessels will benefit from this course.

What You Will Learn

- The background of the Code rules
- The new Division 2 pressure vessels Class 1 and Class 2 types
- Design by Rules, design for internal pressure, external pressure and buckling, and design of openings
- Basis for more economical designs with minimal increase for the additional NDE and documentation
- Design by analysis and fatigue requirements
- Materials and toughness requirements
- Pressure testing, NDE and PWHT requirements
- Pressure relief requirements, Data reports, stamping and documentation

Special Features & Course Highlights

- Introduction and General requirement
- Code rules, scope and jurisdiction
- General requirements related to materials and testing
- Material toughness and impact testing requirements
- Joint categories and joint efficiencies
- It allows design by analysis, as well as design by rule.
- Design by Rule Requirements, design for Internal Pressure, design for External Pressure and Buckling and Design Rules for Openings
- Design by Analysis and fatigue Requirements
- Fabrication Requirements, tolerances and PWHT
- Over-Pressure Protection Requirements
- Inspection and Examination Requirements (NDE)
- Pressure testing,
- Data reports and stamping
- Example problems will be provided throughout.

COURSE OUTLINE

Code rules, scope and jurisdiction

General requirements related to materials and testing

Material toughness and impact testing requirements

Joint categories and joint efficiencies

Welding requirements

Committees, operation and voting procedures

Editions, addenda and interpretations

Design Requirements

Design loadings and allowable stresses

Design criteria and strength theory for Division 1

Formulas for internal pressure and tensile loading

Openings and reinforcement

Hydrostatic and pneumatic testing

Background of the design rules

Example design problems and solutions

- Cylindrical shells and formed heads
- Seismic loading on vertical vessels
- Nozzle reinforcements
- Other special components
- External pressure and stiffening rings
- Reinforced openings and ligament efficiency

Open discussion of design problems

Procedures for external pressure (vacuum) and compressive loads

General requirements related to stamping, reports, testing, PWHT, tolerances, and NDEs

Registration Form: ASME PRESSURE VESSELS SECTION VIII DIVISION 2

How to register for the course:

1. Complete this registration form and fax it to Phindi Mbedzi: Tel: 011 325 0686 Fax: 011 325 0488 Email: Phindi@2kg.co.za
2. Acknowledgement will be emailed to you.
3. Final confirmation and details will be faxed or emailed to you approximately 7 days before the commencement of the seminar.

Cancellation Policy:

By signing and returning the registration form, the authorizing signatory on behalf of the stated company is subject to the following terms and conditions.

- All cancellations must be received in writing
- Any cancellations received less than 3 working days before the date of the event, the full fee will be payable and no refunds or credit notes will be given.
- If a registered delegate does not cancel and fails to attend the Workshop, this will be treated as a cancellation and no refund or credit note will be issued.

Delegate information:

Title: _____ Surname: _____ Name: _____
 Full Company name: _____ Job Title: _____

Postal Address (to which invoice must be sent): _____

Code: _____ VAT number: _____
 Tel: () _____ fax: () _____
 Cell: _____ Email: _____

Contact/ Accounts information:

Title: _____ Surname: _____ Name: _____
 Tel: () _____ fax: () _____
 Cell: _____ Email: _____

Please tick the course that you would like to attend:

Currently Unavailable a Date to be Advised
 Live Virtual Classroom
R11 021.00 (excl VAT)

Currently Unavailable a Date to be Advised
 CedarWoods of Sandton
R13 776.00 (excl VAT)

I have read and agreed to all the conditions of registration as stipulated in this brochure.

 Signature

 Date

For more info and to register contact Phindi Mbedzi on tel: 011 325 0686 or cell: 071 125 6188 and email: phindi@2kg.co.za or visit

www.2kg.co.za