TRAINING COURSE

Safeguarding plant mechanical integrity

11th - 12th June 2019 - Teesside, ABB Office

Using lessons learned to safeguard plant mechanical integrity

According to incident data, failure of pressure equipment is the greatest contributor to major losses of containment in the process industries.

By better understanding how plant equipment can fail, all personnel in the process industries can improve equipment integrity. Whether they are involved in the design or operational phases, managers, engineers and operators need to be aware of the risks of loss of containment, poor reliability and inadequate plant performance.

What will the course cover?
This two-day course uses the findings from process industry incidents to illustrate how potential threats to asset integrity can arise throughout the asset life cycle. The course will cover:

- Overview of design standards
- How material properties can affect selection of materials of construction
- Equipment design limitations
- Equipment failure modes
- Forms of deterioration
- Inspection options and their limitations
- The impact of modifications to equipment

The course will focus on preventing loss of containment from pressure equipment including pressure vessels, piping, and storage tanks.

Price
£1460 + VAT

Who will benefit and what will they gain?
The course is aimed at participants of all backgrounds who require an understanding of the threats to the integrity of equipment. This will enable them to make better contributions to risk management processes throughout the asset life cycle, including hazard studies, management of change, and operational and maintenance procedures. The course will also benefit anyone who is involved in the operation and integrity management of ageing plant.

Training method
The style of the trainers is to encourage participation in the discussions and to use case studies based on actual incidents to broaden delegates' knowledge of the topics. You will explore some of the main causes of equipment failure in the process industries and discuss ways of preventing them.

On completion you should be able to:
- Appreciate the basic design requirements for pressure equipment
- Understand the main forms of deterioration and best ways to manage them
- Understand the key elements of an integrity management system
- Identify sources of good practice guidance for mechanical integrity
- Improve management of change
- Identify the key issues associated with ageing plant

Course leaders

Kev Senior is Machines Functional Leader for ABB. Prior to joining ABB in 2012, Kev served for twenty-three years' service in the Royal Air Force, where he mainly commanded maintenance teams at first and second level in support of fast-jet combat aircraft in addition to his completing a number of staff tours; principally as a Technical Authority for the logistical and technical support of gas turbines.

Paul Jackson has over 40 years' experience in the Nuclear and Process industries. He is a mechanical engineer with specialist expertise in Risk Based Inspection and vessel design and is ABB's functional head of vessels. Paul has wide experience in asset management. Paul is a member of the IMechE pressure systems group committee and EEMUA vessels committee.

This course meets the requirements of Continuing Professional Development (CPD).

Day one agenda* - 08:30 to 17:00
Registration and coffee
Introduction
Case study 1 - design
Overview of material properties and material selection criteria - metal and non-metallics
Case study 2 - construction and commissioning
Forms of deterioration based on API 571 & API 581
Case study 3 - mechanical deterioration
Case study 4 - operation
Close
Day two agenda* - 09:00 to 16:30
Coffee / review of day 1
Case study 5 - maintenance
Case study 6 - inspection
Sources of good practice in integrity management
Case study 7 - Management of Change (MoC)
Organisational implications - organising for integrity
Case study 8 - asset life cycle
Review and course feedback
Close

*ABB reserve the right to amend the course agenda.

How to book

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