

ABB Engineering Services Events

# Managing deterioration of plant equipment



## A two day training course

26th - 27th May 2010 - York, Marriott Hotel

24th - 25th November 2010 - Edinburgh, Marriott Hotel

**IChemE**  
Institution of Chemical Engineers  
approved course



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# Managing deterioration of plant equipment

## How to achieve reliable operation of process equipment by design.

## How to ensure safe and reliable operation of equipment operating beyond its design life.

An effective plant integrity system delivers benefits for safety, reliability and operational performance, whilst optimising maintenance and inspection costs. Implementing such a system requires proactive management of deterioration mechanisms. It requires a “whole team” approach, as equipment integrity is not solely the responsibility of the maintenance and inspection functions. This course covers the essential elements of an equipment integrity management system including legislative compliance.

## What will the course cover?

The course consists of an array of topics which include:

- Integrity management
- Forms of corrosion
- Forms of deterioration
- Focused inspection
- Non-metallics
- Non-destructive testing
- Pressure testing
- Fitness for service
- Defect remediation
- Repair philosophy
- Auditing programmes
- Asset life plans

Topics are covered by discussion, case studies and syndicate exercises.

An emphasis is on practical issues which improves retention and interest by delegates.

## Price:

Member of IChemE - £1110 + VAT

Non-Member - £1200 + VAT

## Who will benefit and what will they gain?

The course will identify the principles of integrity management together with advice on practical steps to establish an effective integrity management programme. The course is aimed at anyone who is involved in the development and implementation of integrity management strategy and procedures, particularly involving ageing plant.

## Training method

The style of the trainers is to encourage participation in the discussions and to use case studies to share experiences of the delegates to broaden their knowledge of the topics. You will explore inspection / integrity management issues during the 2 days of the course

## On completion you should be able to:

- Appreciate the requirements of an integrity management programme and the benefits of focused inspection
- Appreciate the main forms of deterioration and best ways to look for them
- Appreciate how to meet legislation and implement good practice
- Identify the key issues associated with ageing plant

## Course leaders

**Jon Cook**, MSc Consultant in integrity management and fitness for service assessments for ABB Engineering Services. Jon has over 15 years' experience of finite element analysis and a broad based mechanical engineering background.

**Neil Henry**, Senior Consultant, BSc. CEng. FIMMM. Neil is the Head of the Materials Engineering team for ABB Engineering Services. He has gained a deep understanding of materials' performance by plant failure analysis

and materials selection of metallic and non-metallic materials.

**Laza Krstin**, Principal Consultant, BSc Mechanical Engineering for ABB Engineering Services - Throughout his career Laza has been involved in the design, construction and commissioning of piping systems for major capital projects and maintenance and problem-solving on chemical plants worldwide.

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

<b>Agenda Day 1 - 08:30 to 17:00</b>
Registration and coffee
Introduction
Integrity management through the lifecycle Overview of material properties and material selection criteria - metal and non-metallics Forms of corrosion based on API 571 & API 581 including corrosion under insulation Forms of deterioration based on API 571 & API 581 Mechanical deterioration
Close
<b>Agenda Day 2 - 09:00 to 17:00</b>
Coffee / review of day 1
Best practice in focused inspection Non-destructive testing - overview Asset life planning and ageing Fitness for purpose assessments / repair philosophy
Review and course feedback
Close

The following companion courses are also available:

### **Design & Operation of Piping Systems**

This 2 day course explains why it is necessary to pay attention to piping systems at all stages throughout their life to prevent loss of containment and maintain a licence to operate.

### **Essentials of Pressure Systems**

This course aims to provide the fundamental understanding required for managing the integrity of pressure systems, some of the problems encountered and how to avoid them. The course covers the significant deterioration mechanisms that can affect pressure equipment and provides an overview of the UK legislative framework relating to pressure systems.

## Four easy ways to book

Post: Send completed registration form to address below  
Telephone: Call Jackie Kendall on +44 (0)1642 372121  
Fax: Fax your form to +44 (0)1642 372188 f.a.o. Training courses  
Email: jackie.kendall@gb.abb.com

All correspondence should be addressed to:

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