WebCorr
CORROSION CONSULTING
SERVICES

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WebCorr Corrosion Consulting Services Presents

Corrosion Control and Prevention in the Nuclear Power Industry

Date: As published on website Venue: As published on website

Course Overview

Corrosion issues have plagued the nuclear power industry for decades. There are a number of complex corrosion mechanisms involved for steels and alloys operating in the water/steam environments under high temperature and high pressure. This 3-day training course covers common engineering materials used in nuclear power plants, the various degradation mechanisms and their mitigation methods for the structures, systems, and components in boiling water reactors (BWRs) and pressurized water reactors (PWRs). Monitoring and inspection techniques are also presented.

This corrosion short course is available for on-site training, online and distance learning worldwide. It can also be customized to meet the specific needs of your organization.

Who Should Attend

Designers, Inspection Engineers, Maintenance Engineers, Plant Inspectors, Mechanical Engineers, and Process Engineers in the nuclear power industry.

Course Outline

1. Introduction to Corrosion in the Nuclear Power Industry
2. Overview of the Basic Designs of the BWR and PWR
3. Materials for Nuclear Applications
   - 3.1 Metallurgy and Irradiation Effects
   - 3.2 Materials of Construction
4. Degradation Mechanisms
   - 4.1 Radiation Damage
   - 4.2 Fatigue
   - 4.3 General Corrosion
   - 4.4 Stress Corrosion Cracking
   - 4.5 Flow Accelerated Corrosion
   - 4.6 Thermal Ageing
   - 4.7 Galvanic Corrosion
   - 4.8 Stress-Corrosion Cracking & IGA
   - 4.9 Crevice Corrosion & Pitting

   - 4.10 Fretting Wear & Flow-Induced Vibration
   - 4.11 Hydrogen Effects
   - 4.12 Microbiologically-Induced Corrosion (MIC)
5. Mitigation of Degradation in Structures, Systems, and Components
   - 5.1 Steel Containments
   - 5.2 Reactor Pressure Vessels in Pressurized Water Reactors
   - 5.3 Pressurizers in Pressurized Water Reactors
   - 5.4 Monitoring and Mitigation Methods in Pressurized Water Reactors
   - 5.5 Reactor Pressure Vessel Internals and Piping in Boiling Water Reactors
6. Integrity Assessment of Structures, Systems, and Components
   - 6.1 Inspection and Assessment Methods
   - 6.2 Integrity Monitoring
   - 6.3 Non-destructive Examination/In-service Inspection of Reactor Pressure Vessels
   - 6.4 Non-destructive Examination/In-service Inspection of Steam Generators
   - 6.5 Non-destructive Examination/In-service Inspection of Reactor Pressure Vessel Heads

Course Outline

7. Corrosion of Containment Materials for Radioactive-Waste Isolation
8. Corrosion Modeling and Prediction Software for the Nuclear Power Industry
9. End of Course Examination

Course Registration

Please register online at www.corrosionclinic.com
Or use the form below (photocopies of this form may be used for multiple bookings).

Dr/Mr/Ms _____

Organization _____

_____

Contact Person _____

Contact Dept _____

Telephone _____ Fax _____

Email _____

Payment should be made by TT or online banking. Currencies in Australian Dollar, Canadian Dollar, US Dollar, Euro and Sterling Pound can be transferred directly without conversion. Our bank details can be found at the link below:

https://www.corrosionclinic.com/payment.html

Course Fee and Discount

Standard: $4,950 **Discount**: $4,455

The fee includes a hardcopy of course note, certificate, light lunch, coffee breaks each day during the course.
Discount applies to a group of 3 or more persons from the same organization registering at the same time, or early-birds making payment at least 8 weeks before the course commencing date.

Cancellation and Refunds

Cancellation or replacement should be conveyed to WebCorr in writing (email or fax). An administration charge of 50% of the course fee will be levied if the cancellation notice is received from 14 to 7 days before the course commencing date. No refund will be made for cancellation notice received 6 days and less. No refunds will be given for no-shows. Should WebCorr find it necessary to cancel a course, paid registrants will receive full refund. Refund of fees is the full extent of WebCorr's liability in these circumstances.

WebCorr has NACE certified Corrosion Specialist (#5047) providing customized in-house training, online and distance learning corrosion courses, corrosion seminars and workshops on corrosion, materials, metallurgy, paints and metallic coatings. Our corrosion courses are developed and taught by NACE certified Corrosion Specialist with over 30 years of practical experience in the field. Our training success is measured by your learning outcome.