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WebCorr Corrosion Consulting Services Presents

Environmental Cracking (HB/HIC/SWC/SOHIC/SSC/SZC/HSC/HE/SCC)

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

Course Overview

Environmental Cracking is one of the key factors that can affect the structural integrity or limit the life of metallic structures. Environmental cracking is a general term that includes: stress corrosion cracking (SCC), caustic cracking, liquid metal cracking, corrosion fatigue, hydrogen blistering, hydrogen embrittlement (HE), hydrogen-induced cracking (HIC), stepwise cracking (SWC), stress-oriented hydrogen-induced cracking (SOHIC), sulfide stress cracking (SSC), soft-zone cracking (SZC), and hydrogen stress cracking (HSC).

This 5-day corrosion short course systematically and thoroughly covers the recognition, mechanisms, test methods and prevention of the various types of cracking phenomena. Also discussed in this corrosion short course is the NACE MR0175/ISO 15156 standard for the selection of crack-resistant materials for use in H2S-containing oil and gas environments.

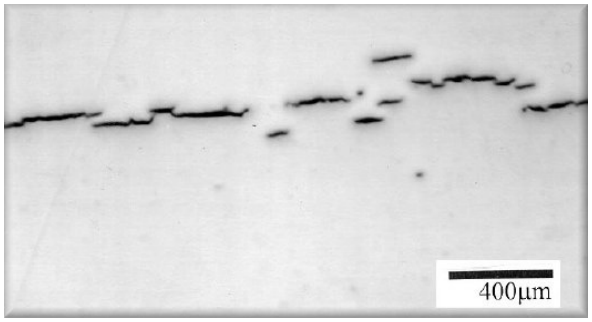
This course is available for in-house training, online and distance learning worldwide. It can also be customized to meet the specific needs of your organization.

Who Should Attend

Designers and engineers who are involved in the selection and evaluation of materials for use in H2S-containing environments in oil and gas production.

Course Outline

1. Introduction
2. Corrosion Basics
3. Overview of Environmental Cracking
4. HB/HIC/SWC/SOHIC/SSC/SZC/HSC/HE/SCC: Recognition, Mechanisms and Prevention
   - 4.1 Overview of Hydrogen Damage
   - 4.2 Hydrogen Blistering (HB) and HIC/SWC
   - 4.3 High Temperature Hydrogen Attack (HTHA)
   - 4.4 Hydrogen Embrittlement
   - 4.5 Hydride Embrittlement



   - 4.6 Hydrogen Induced Cracking (HIC), Stepwise Cracking (SWC) & SOHIC
     - 4.6.1 Definition
     - 4.6.2 Recognition
     - 4.6.3 Mechanisms
     - 4.6.4 Factors Influencing HIC, SWC & SOHIC
       - 4.6.4.1 Environmental Factors
       - 4.6.4.2 Metallurgical Factors
     - 4.6.5 Prevention and Control
   - 4.7 Sulfide Stress Cracking (SSC) and Soft Zone Cracking (SZC)
     - 4.7.1 Definition
     - 4.7.2 Recognition
     - 4.7.3 Mechanisms
     - 4.7.4 Factors Influencing SSC and SZC
       - 4.7.4.1 Environmental Factors
       - 4.7.4.2 Metallurgical Factors
     - 4.7.5 Prevention and Control
   - 4.8 Hydrogen Stress Cracking (HSC) and Hydrogen Embrittlement (HE)
     - 4.8.1 Definition
     - 4.8.2 Recognition
     - 4.8.3 Mechanisms
     - 4.8.4 Factors Influencing HSC and HE
       - 4.8.4.1 Environmental Factors
       - 4.8.4.2 Metallurgical Factors
     - 4.8.5 Prevention and Control
   - 4.9 Stress Corrosion Cracking (SCC)
     - 4.9.1 Definition
     - 4.9.2 Recognition
     - 4.9.3 Mechanisms
     - 4.9.4 Factors Influencing SCC

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.