1 Scotts Road #24-10, Shaw Centre, Singapore 228208 Tel: (+65) 64916456 Fax: (+65) 64916456

Email: webcorr@corrosionclinic.com www.corrosionclinic.com

www.corrosionclinic.com Registration No.: 53087135A

• Consulting • Training • Expert Witness • Failure Analysis • Design Review • Corrosion Test • Modeling • Coatings • Materials • Cathodic Protection

## WebCorr Corrosion Consulting Services Presents

# Corrosion in Fire Protection Systems (FPS): Detection, Mitigation and Prevention

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

#### **Course Overview**

Corrosion, in various forms, affects virtually every water-based fire protection system. This one-day corrosion course aims to provide the participants with a thorough understanding of the causes of corrosion in fire protection systems and the technical know-how of corrosion detection, mitigation and prevention. Upon completion of this short course the participants will be able to identify different forms of corrosion, analyze the root causes of corrosion failures, and apply appropriate methods and strategies for detection, mitigation and prevention of corrosion in fire protection systems. This corrosion short 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**

Owners and operators of fire protection systems.

#### **Course Outline**

- 1. Introduction to Corrosion in Fire Protection Systems
  - 1.1 Classification of Corrosion
  - 1.2 Characteristics of Water-Based Fire Protection Systems
- 2. Corrosion: Basic Concepts and Terminology
- 3. The Nature of Materials Used in Fire Protection Systems
  - 3.1 Carbon Steels
  - 3.2 Galvanized Steels
  - 3.3 Stainless Steels
  - 3.4 Copper and Copper Alloys
- 4. The Corrosivity of Water
- 5. Common Forms of Corrosion in Fire Protection Systems
  - 5.1 Uniform Corrosion
  - 5.2 Galvanic Corrosion
  - 5.3 Dealloying
  - 5.4 Crevice Corrosion
  - 5.5 Pitting Corrosion
  - 5.6 Erosion Corrosion
  - 5.7 Microbiologically Influenced Corrosion (MIC)



- 6. Detection, Mitigation and Prevention of Corrosion in Fire Protection Systems
  - 6.1 Detection of Corrosion in Fire Protection Systems
    - 6.1.1 Visual Characteristics of Corrosion
    - 6.1.2 Location and Distribution Patterns of Corrosion
    - 6.1.3 Characteristic Features of Corrosion Under the Microscope
    - 6.1.4 Field Testing
    - 6.1.5 Laboratory Testing
  - 6.2 Methods and Strategies for Mitigation of Corrosion in Fire Protection Systems
    - 6.2.1 Pipe Replacement
    - 6.2.2 Cleaning
    - 6.2.3 Water Treatment
  - 6.3 Methods and Strategies for Prevention of Corrosion in Fire Protection Systems
    - 6.3.1 Guidelines for Corrosion Prevention in Wet FPS
    - 6.3.2 Guidelines for Corrosion Prevention in Dry or Preaction FPS
- 7. Monitoring Corrosion in Fire Protection Systems

#### **Course Registration**

Please register online at <a href="www.corrosionclinic.com">www.corrosionclinic.com</a> 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: \$2500 Discount: \$2250

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.



