Topical Outline
Nitrogen Inerting for Corrosion Control in Fire Sprinkler Systems
Dry Pipe Nitrogen Inerting (DPNI) and Wet Pipe Nitrogen Inerting (WPNI)

A. Corrosion in Wet Pipe Fire Sprinkler Systems
   a. Root Causes for corrosion in wet pipe fire sprinkler systems
   b. The three pervasive myths regarding corrosion in fire sprinkler systems
   c. The problem with corrosion by-product solids

B. Corrosion in Dry/Pre-action Fire Sprinkler Systems
   a. Aggressive nature of oxygen corrosion in dry pipe systems
   b. Acid corrosion caused by condensate
   c. Why desiccant driers are a waste of money
   d. Corrosion in coolers and refrigerators
   e. The impact of corrosion by-products on sprinkler performance

C. Galvanized Pipe Corrosion
   a. Corrosion of zinc in galvanized steel piping
   b. Why MIC is never a problem in galvanized pipe
   c. Six reasons why galvanized steel tubing should not be used in fire sprinkler systems

D. Corrosion Assessments – Managing Risk and Developing a Corrosion Management Strategy
   a. Video scoping, pipe analysis, deposit analysis, water analysis, system analysis
   b. Fire sprinkler system analysis – remediation (save the system)

E. Nitrogen Gas – The Ideal Solution for Corrosion Control in Fire Sprinkler Systems
   a. The five options for controlling corrosion in any industrial application
   b. Using nitrogen gas to remove corrosive gases from fire sprinkler water
   c. Dry Pipe Nitrogen Inerting (DPNI)
   d. Wet Pipe Nitrogen Inerting (WPNI)

F. Fire Code developments
   b. Changes in Unified Facilities Criteria (UFC-3-600-01)
   c. No more chemicals, no more antifreeze
   d. “C” Factor calculations for black steel and galvanized steel
   e. State Fire Marshall

G. FM Global developments
   a. 2-0 data sheet regarding corrosion nitrogen inerting
   b. Recent position paper

H. Nitrogen Generation System – continuous nitrogen with system venting
   a. Membrane Nitrogen Generators
   b. Portable Nitrogen Generators
   c. Pre-Engineered Nitrogen Generators
   d. In-Line Corrosion Monitoring in fire sprinkler systems

I. Case Studies
   a. WPNI Case Study – Mission Critical Manufacturing
   b. WPNI and Remediation – 20+ Year Old Structures
   c. DPNI in Mission Critical Data Centers, Big Box Retail, Parking Structures
   d. WPNI Multi-story wet pipe fire sprinkler systems