



# The Institution of Engineers, Malaysia

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## Talk on Dual Agent Fire Extinguishing System

(Organised by the Building Services Technical Division, IEM)

BEM Approved CPD/PDP Hours: 2 Ref No: IEM14/HQ/189/T

Date : 19 August 2014 (Tuesday)  
Time : 5.30 pm – 7.30 pm (Refreshments will be served at 5.00 pm)  
Venue : C&S and TUS Lecture Rooms, 2<sup>nd</sup> Floor, Wisma IEM, Petaling Jaya  
Speaker : Mr. Anthony Stagg

### SYNOPSIS

For many decades gaseous extinguishing systems and water mist extinguishing systems have been used as separate extinguishing mediums with great success. Each type of extinguishing system has its own features and benefits and has found their niche fire risk applications. Typically gaseous extinguishing systems protect risks that involve electricity, electronics, computer equipment, IT application due to the agent's rapid extinguishing ability and most clean agents being electrically non-conductive. Typically water mist extinguishing system have been used in Class B fires involving flammable liquids and fluids due to the agents ability to rapidly absorb heat from such a large heat release output fire. The concern with water mist in electrical and computerised applications is electrical conductivity and water damage due to the droplet size delivered from traditional water mist systems. Both systems have features and benefits which is why they have found their respective niche applications. However to date no one has commercially developed a fire extinguishing system that combines the two extinguishing mediums to take advantage of both their respective benefits until today.

The Victaulic Corporation have developed and tested a dual agent fire extinguishing system generates a homogenous suspension of sub 10 micron water droplets and nitrogen gas that is delivered at relatively high momentum with very low operating pressures relative to existing fire extinguishing technologies. The combined extinguishing characteristics of water and nitrogen enhance the individual components; coupled with the high delivery momentum, the suspension has demonstrated fire extinguishment capabilities and benefits that extend the boundaries of existing single fluid systems. The science of generating the homogeneous extinguishing agent is presented as well as a brief explanation of the theory of the fire extinguishment using the system coupled with the results to demonstrate the dual agent capabilities in total flooding and local applications.

### BIODATA OF SPEAKER

**Mr. Anthony Stagg** is a director of Fire Protection Technologies Australia & Asia Pacific and has been specialising in special hazard fire detection and suppression systems for most of his professional career. For the past 20 years he has specialised in the design, supply and commissioning of these specialised fire protection systems. He holds a Diploma in Applied Science from NMCT (1994), Diploma in Fire Technology from Swinburne University (2006) as well as a Post Graduate Diploma in Fire & Risk Engineering from Victoria University (2010). He has been the recipient of the Harry Marriott Award selected by the Fire Protection Association of Australia for work and studies in Fire Technology. He has also been heavily involved in Australian Standards committees as well as technical committees associated with the Fire Protection Association of Australia. He has had one technical paper published in the New Zealand fire journal on the topic of pressure relief venting for gaseous extinguishing systems.

**Ir. Wong Chu Loong**  
Chairman  
Building Services Technical Division, IEM

### ANNOUNCEMENTS TO NOTE:

- Talk is for IEM members only (**pre-registration and online registration are NOT required**) (**telephone and/or fax reservation will NOT be entertained**)
- **Non members** may also attend the talk and will be charged a registration fee of RM50 and an administrative fee of RM10.
- For affiliate members, there will be no registration fee. However, they are requested to produce their membership card as proof of membership. For the list of affiliates, please refer [www.myiem.org.my/content/memorandum\\_of\\_understanding-469.aspx](http://www.myiem.org.my/content/memorandum_of_understanding-469.aspx).
- Limited seats available on a "first come first served" basis (maximum 110 participants).
- IEM members are required to produce your membership cards for confirmation of attendance (CPD purpose).
- Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.  
*IEM members who fail to produce their membership cards will be charged a fee of RM20.00.*

### FUNDS FOR IEM BUILDING FUND (WISMA IEM)

- Kindly be informed that IEM will be charging IEM members RM10.00 administrative fee for talks organized by IEM.
- The fee would be used for overhead costs, building maintenance expenses as well as to support the purchase of the new building.
- All contributions will be deeply appreciated by IEM
- Students are however exempted.

### CPD HOURS CONFIRMATION

Name: .....

Membership No: .....

Signature: .....