



The Institution of Engineers, Malaysia

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Talk on

“DETECTION SYSTEM – PREVENTIVE OR MITIGATION OR BOTH”

(Organised by Oil, Gas & Mining Technical Division, IEM)

Date : 13 July 2013 (Saturday)
Time : 9.00 am – 11.00 am (Refreshment would be served at 8.00 am)
Venue : C&S Lecture Room, 2nd Floor, Wisma IEM, Petaling Jaya
Speaker: Ir. Gary Lim Eng Hwa

BEM Approved
CPD Hours: 2
Ref No: IEM13/HQ/163/T

SYNOPSIS

Fire triangle is represented by the elements of Fuel, Oxygen and Heat Source. Vapour / Gas Explosion have 2 additional elements namely Dispersed state (stratified due to vapour density differences) and “Confined” Area for the accumulation of the gas/vapour.

In the O&G industries, detection system is more than just fire detection because it would be too late as the environment maybe hostile filled with flammable vapour or explosive gases, a catastrophic incident may occur.

The detection systems main focus probably on preventive, detecting the presence of hydrocarbon explosive gases in the vicinity, in this respect installing fixed and use of portable gas detectors are deemed as necessities. However, manufacturers using hydrocarbon in their processes seldom have gas detectors instead the use of ventilation system in diluting the area and limiting the amount of such fuel inside the area.

Electrical equipment will be a major heat source therefore the selection of the equipment must be in accordance to:

- BS EN 60079-14:2008 Explosive atmospheres. Electrical installations design, selection and erection (Malaysian Standard MS IEC 60079-14:2008)
- NFPA 70 National Electrical Code

Detection systems that are designed to mitigate an incident will take the by-products of a fire to evacuate the staff within the area or activate a suppression system. In this respect, losses arising from a fire incident will be mitigated.

BIODATA OF SPEAKER

Ir. Gary Lim Eng Hwa; is an experienced and qualified Professional Engineer with over 20 years of manufacturing experience in these areas; Industrial Engineering (Work Study), Project Management, Maintenance, Production and Factory Management. The 20 years of his work spanned over various industries namely industrial chemicals, dairy products, jam, sauces, chocolates, confectionnaires, industrial gases (liquid nitrogen, oxygen, argon, etc), blow moulding of plastic containers and paint manufacturing (highly fire hazardous).

His last 11 years before his retirement from full time work was with a multinational insurance company, he was their Risk Engineer where he conducted risk management surveys of various industries from wafer plant to power plants. He has a degree in Mechanical Engineering from the University of Canterbury, New Zealand and a Management Diploma from New Zealand. He is a Professional Engineer registered with the Board of Engineers, Malaysia and a Fellow of the Institution of Engineers, Malaysia. Currently, he conducts courses regularly on the concepts and design in the area of Fire Engineering and Plumbing Engineering at all the IEM branches in Malaysia. He also conducts courses with Malaysia Institute of Insurance on these topics: The Art of Property Underwriting Profitability and Essence of Survey Report; Applying Fire Engineering Knowledge in Property Survey and Loss Control; Enterprise Risk Management & Business Continuity Management.

Ir. Razmahwata Mohd Razalli

Chairman

Oil, Gas & Mining Technical Division, IEM

ANNOUNCEMENT TO NOTE

1. Talk is **STRICTLY** for IEM members only (pre-registration is **NOT** required).
2. Telephone and/or fax reservation will **NOT** be entertained.
3. Limited seats are available on a "first come first served" basis (maximum 110 participants).
4. IEM members are required to produce your **membership cards** for confirmation of attendance (CPD purpose).
5. 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 NEW BUILDING (WISMA IEM)

Kindly be informed that participants will be charged **RM10.00** administrative fee for talks organized by IEM. The fee will be used for overhead costs, building maintenance expenses as well as to support the purchase of Wisma IEM. However, students are exempted. Your understanding is much appreciated.

CPD HOURS CONFIRMATION

Name :

Membership No. :

Signature :