



THE INSTITUTION OF ENGINEERS, MALAYSIA

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Half-Day Workshop: How to Assess Inherent Occupational Health in Chemical Process Plant

(Organised by the Chemical Engineering Technical Division, IEM)

Date : **Saturday 23rd July 2011**
Time : **9.00 a.m. to 1.00 p.m.**

Venue : **C&S Lecture Room, 2nd Floor, Wisma IEM**
Speaker : **Dr. Mimi H. Hassim**

BEM APPROVED
CPD/PDP HOURS: 3.5
Ref. No.: IEM11/HQ/158/W

~ SYNOPSIS ~

The safety, health, and environmental (SHE) assessment is nowadays regarded as a necessity in any chemical process design. The concept of inherent safety teaches that hazards that might arise in an operating process should be identified early, that is when the plant is still 'on paper'. In order to avoid accidents or hazardous events, it is better to design the plant to be inherently safer, healthier, and environmentally friendlier, rather than installing add-on systems to control hazards.

Compared to safety and environment, workers' health is the aspect which is always poorly considered during process development due to its complicated underlying discipline. However, each year more people die from diseases caused by work than are killed in industrial accidents. In principle, the inherent occupational health is a new concept, which refers to the prevention of occupational hazards that have the potential to cause health damage to workers by trying to eliminate the use of hazardous chemicals, process conditions, and operating procedures. The concept can be adopted throughout the process lifecycle. However, as the process proceeds through the project stages, there are progressively less opportunities for implementing inherently safer design features and the cost of making retrospective modifications increases. After the hazards are evaluated, technical countermeasures can be implemented to reduce, if not eliminate, the hazards as low as reasonably practicable.

The workshop will introduce you to the following topics:

1. What is inherent occupational health concept and how it can be adopted during the design phase?
2. How to assess inherent occupational health hazards at the different stages of the process design?
3. How to quantify and characterize the risk of chemical exposure among workers?
4. How to eliminate or reduce the health hazards in the process? What is the best design principle to be applied at the design stage?

~ BIODATA OF SPEAKER ~

Dr Mimi Hassim is a Senior Lecturer with Universiti Teknologi Malaysia. She is an established and world pioneer researcher working on inherent occupational health studies of chemical processes. She published more than 10 journal papers and made a lot of presentations in various conferences. She has also received the best paper award in one of the important congress. Her methods have been adopted by a major chemical company in Finland.

TENTATIVE PROGRAMME:

- 8.30 - 9.00 a.m. - Registration
- 9.00 - 10.30 a.m. - Session 1: Health hazards assessment (R&D and pre-design stages)
- 10.30 - 11.00 a.m. - Refreshment Break
- 11.00 - 11.30 p.m. - Session 2: Health hazards assessment (basic engineering stage)
- 11.30 - 12.00 p.m. - Session 3: Chemical exposure risk estimation and characterization
- 12.00 - 1.00 p.m. - Session 4: Counter-measures design for hazards reduction/elimination
- End of workshop

REGISTRATION FEES

| | ONLINE | NORMAL |
|-----------------------|------------|----------|
| Student Members | : RM75.00 | RM80.00 |
| Graduate Members | : RM95.00 | RM100.00 |
| IEM Corporate Members | : RM190.00 | RM200.00 |
| Non - IEM Members | : RM235.00 | RM250.00 |

REGISTRATION INFORMATION:

All fees must be **fully** paid before commencement of the Workshop, otherwise participants will not be allowed to enter the Lecture/Conference Hall.

Reservation/Booking by fax or email of intending participants are acceptable with payment being forwarded before the closing date. If a place is reserved and the intended participants failed to attend the talk on the date of the event the fee is to be settled in full. Completed registration form accompanied by cash/cheque/PO/MO are to be made payable to **"The Institution of Engineers, Malaysia"** account should reach the IEM Secretariat not later than **22nd July 2011**.

The fee paid is non refundable. However, substitution of participant(s) will be permitted with approval by IEM. In view of the limited places available, intending participants are advised to send their registration as early as possible so as to avoid disappointment. The Organising Committee reserves the right to cancel, alter or change the programme due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes.

For **ONLINE REGISTRATIONS**, please note that payment **MUST** be made **within 7 days** of the registration date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Further Enquiries

If you require further details or clarifications kindly contact the IEM Secretariat at:
Chemical Engineering Technical Division
The Institution of Engineers, Malaysia
Bangunan Ingenieur, Lot 60/62, Jalan 52/4
P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor
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Email : seri@iem.org.my
Website: <http://www.iem.org.my>

Ir. Assoc. Prof. Dr. Abdul Aziz Abdul Raman,
Chairman
Chemical Engineering Technical Division, IEM

- REGISTRATION FORM (PLEASE COMPLETE THIS FORM IF YOU PLAN TO ATTEND THE SEMINAR) -

Half-Day Workshop: How to Assess Inherent Occupational Health in Chemical Process Plant

Chairman, Chemical Engineering Technical Division, IEM

I/We wish to enroll the following person(s) to the Half-Day Seminar on **Saturday 23rd July 2011**.

| NAME(S) | MEMBERSHIP NO. | GRADE | REGISTRATION FEES |
|----------|----------------|-------|-------------------|
| | | | |
| | | | |
| TOTAL RM | | | |

Enclosed herewith a cash/crossed cheque/bank draft/money order No. for the amount of RM issued in favour of **"The Institution of Engineers, Malaysia"** account and crossed **"A/C Payee only"**. I/We understand that the fee is not refundable if I/we withdraw after my/our application is/are accepted by the Organising Committee but substitution of participants will be allowed. **If I/we fail to attend the Seminar, I/we will still settle the registration fee in full. The registration closing date is on 20th July 2011. All payment MUST be settled before 22nd July 2011.**

Contact Person : _____
Organisation : _____
Address : _____
Signature : _____

Designation : _____
Tel no. : _____
Fax no. : _____
Handphone : _____
Email : _____
Date : _____

(Photostat copies are acceptable)