HAZARD AND OPERABILITY STUDY

23 - 25 Nov 2015 / KL, Malaysia

The Hazard and Operability study (HAZOP) is an excellent risk evaluation tool that enables you to identify hazards and reduce associated risks. This two-day course will give you all the skills required to carry out and interpret a HAZOP study. The principles and practice, as adopted within the process industries, are demonstrated by case study material, selected to illustrate a wide range of applications. Guidance is given on the management of HAZOP and case studies.

The aim of the 2 day course is to introduce and develop a basic understanding of the Hazard and Operability Study technique by means of short presentations and a syndicate exercise.



WHO SHOULD ATTEND?

This course is designed for HSE Managers and Practitioners and Managers/Executives involved in Process Engineering, Operations, Maintenance and Projects. It is also for people in the process industries who intend to participate in HAZOP studies, including design engineers, project engineers, production supervisors, maintenance supervisors and equipment vendors.



INSTRUCTOR:

Mr.DAVID MATTOCK is a Graduate in Maritime Studies from Cardiff University. He has a background in logistics, operations management, engineering and process safety in the oil and gas sectors. David worked

for Kuwait Petroleum (GB) from 1997 – 2005. He is a trainer and consultant specialising in health and safety consultancy in the oil and gas sectors and has worked for organisations including the Oil and Pipelines Agency, Chevron, NuStar Energy, Certas Energy, Advanced Insulation and EDF. He is a Chartered Member of the Institute of Occupational Safety and Health (CMIOSH) and is on the UK Governments Occupational Health and Safety Consultants Register (OHSCR). Apart from training, David carries out competent person work which includes the production of safety reports, carried out hazard studies (including Hazard and Operability Studies (HAZOPS), bow-tie's and Failure Modes and Effects Analysis (FMEA).

David uses a combination of theory and practical knowledge to make training as relevant as possible to his delegates.

After completion of our HAZOP course the delegate should be able to:

- Identify when to apply HAZOP
- Understand the HAZOP guideword method
- Understand the human and engineering data resources required
- Be able to plan and report a HAZOP study
- Contribute more effectively at HAZOP study meetings

Course Objectives

This 2 day course is designed for engineers, who need to understand the basics of HAZOP technique in order to act as organising HAZOP study meetingsdischarge workplace safety responsibilities both onshore and offshore. The Certificate also highlights the importance of process safety management in the oil and gas industry.

Course approach

Each course features a balance of theory and practice with case studies taken from real situations, usually the personal experience of the trainer. Where possible, the trainer will discuss applications of direct relevance to the delegates, and can offer impartial advice about sources of further information or consultancy services.

FEE	1 PAX	3 PAX OR MORE		
Per Person	USD 2395.00	USD 2295.00		
Early bird discount Pay Online with Credit Card by 28 th February to SAVE USD 100.00 per person				





FOR ENQUIRIES GAMAR CARLESATER EMAIL: gamar@cmtsp.com.sg TEL: +65 9186 7757 | FAX: +6563455928 www.cmtevents.com

I would like to register as a

🖵 Delegate 🛛 🗋

Sponsor

Name		
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NEBOSH INTERNATIONAL CERTIFICATE OIL AND GAS OPERATIONAL SAFETY 16 - 20 Nov 2015 / KL, Malaysia

COURSE CONTENT

DAY 1

09:00 - 10:30 Session 1

- Introduction
- Course overview
- HAZOP versus codes of practice
- Terminology
- Hazard identification techniques
- · Case study Failure to identify the hazards

10:45 - 12:15 Session 2

- The stages of a project page
- Research and pilot plant studies
- Preliminary project identification
- Conceptual design page
- Detail design page
- Procurement / construction pre-commissioning page
- Commissioning
- Operation
- Shutdown
- Demolition

13:15 - 14:45 Session 3

- UK regulatory climate / Duties under the HASAWA
- Seveso II / III Directive and the COMAH regulations 4.4.1 Offshore page 4.5
- The US PSM standards

15:00 - 16:45 Session 4

- Hazard identification techniques
- Intuitive methods
- Brainstorming
- Inductive methods
- Fault tree analysis
- Event trees
- Failure Mode and Effect Analysis FMEA
- Check-lists
- 'What if?'
- Job safety analysis

DAY 2

09:00 - 10:30 Session 5

- Basic concept
- · Guidewords and their meaning
- Output of HAZOP procedure
- Batch process procedure
- Guide diagram for batch processes
- Further advice on the use of guidewords

10:45 - 12:15 Session 6

- Preparing for the study
- Chairman's / team leader responsibilities
- Records and progressing of actions
- Use of records to help with emergency planning
- Potential pitfalls
- Risk evaluation
- Hazard study leaders / chairman
- Training page
- Duties and role of leaders

13:15 - 14:45 Session 7

- Process description
- Butane storage example
- Process description
- Process description
- Incident as a result of a HAZOP action not being implemented
- Summary
- Incident
- Investigation
- Lessons learned

15:15 - 17:00 Session 8

- HAZOP practical
- Course review and closeout



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