BOWTIE BARRIER-BASED RISK MANAGEMENT

For Practitioners

13 - 14 September 2022 | 2 Days | Kuala Lumpur

Program Overview

Modern thinking on risk management puts heavy emphasis on the use of defences or barriers to prevent losses attributable to organizational disturbances. Failure of these barriers leads to unwanted incidents.

Barrier management is therefore an important facet of risk management. The Bowtie technique is ideally suited for this purpose, allowing detailed analysis of prevention and mitigation measures – in other words, the barriers – for specific hazards and their ultimate consequences. Effective barrier management involves linking the barriers on the Bowties to specific elements of the management system such as HSE-critical activities/tasks and their accountabilities/responsibilities, standards, policies and remedial actions to address any shortfalls.

The Bowtie Methodology lies at the foundation of The Hazards and Effects Management Process (HEMP), the latter being originally developed to provide a structured approach to the analysis of safety hazards throughout the life cycle of an installation that has become the International Best Practice for risk management. The Bowtie technique offers a powerful visual tool for analyzing hazard scenarios and communicating to the workforce how hazards are released, how they can escalate and how they can be managed effectively. It is currently widely used in such diverse sectors as oil and gas, chemical process, power generation, mining, aviation/aerospace, healthcare, manufacturing, IT security, finance and government.

This 2 days course is aimed at practitioners and specialists in in the management of HSE, Process Safety, Operations, Maintenance, Engineering Design, Projects and Enterprise Risk. It highlights the key principles of Barrier-based Risk Management and how the Bowtie technique can augment risk management in their organizations, at the same time facilitating

Course Objectives

This course is designed to help participants to:

- Gain an understanding of the principles that underlays Loss causation. Loss Prevention and Barrier-based Risk Management;
- Acquire hands-on experience in building complete Bowtie models and performing Bowtie analysis using the BowTieXP software, and;
- Achieve a firm grasp of the essential requirements for the effective implementation of barrier management.

Who should attend?

This course is designed for practitioners and specialists in the management of HSE, Process Safety, Operations, Maintenance, Engineering Design, Projects and Enterprise Risk

Course Methodology

- Interactive Learning
- Real Case Studies
- Worked Exercises
- Q&A Session

For more information, visit us at:
www.paceup.com.my

COURSE OUTLINE

INTRODUCTION AND THE PRINCIPLES OF LOSS CAUSATION AND LOSS PREVENTION , BARRIER-BASED RISK MANAGEMENT

- Early Barrier Thinking
- The Swiss Cheese Incident Causation Model
- Cause & Effect Pathways
- Tripod Beta, BSCAT and Barrier Failure Analysis with examples
- Combined FTA/ETA – the case for Barrier-based Risk Management
- History and development of the Bowtie technique
- The Hazards & Effects Management Process (HEMP)
- Visualizing risk scenarios using the Bowtie technique
- Examples of enhanced Bowtie models
- Risk Management & ALARP
- Defense in Depth and Complexity of Controls
- When Bowties are Used
- Advantages of the Bowtie technique
- Risk Communication, Advantages & Limitations of the Bowtie technique

INTERACTIVE BOWTIE WORKSHOP – USE OF THE BOWTIEXP SOFTWARE

Bowtie nomenclature and definitions:

- Hazard
- Top Event
- Threat
- Consequence
- Re-configuring the Risk Assessment Matrix in the BowTieXP
- Control Barrier
- Recovery Preparedness Measure
- Hints and tips on Barriers
- Incorporating Barrier Acceptance Criteria in the BowTieXP
- Escalation Factors
- Escalation Factor Control
- Mini-exercises on nomenclature and definitions and on creating basic Bowtie models using the BowTieXP software – key functions and features

THE ESSENTIALS OF BARRIER MANAGEMENT

- Linking Barriers to the Management System
- Activities and Tasks and Assignation of Responsibilities
- Safety Critical Elements (SCEs) in the Bowtie
- System and Parts
- Independent Barriers
- Barrier Effectiveness
- Corrective/Remedial Actions
- Key Functions and features in the BowTieXP software for incorporating these essential features of barrier management, including generating reports and presentations

BOWTIE ANALYSIS AND BUILDING BOWTIE MODELS USING THE BOWTIEXP SOFTWARE

- Syndicate Exercises

SUMMARY & REVIEW

- Learning points and takeaways

YOUR EXPERT TRAINER

FAIZAL FARID WAJIDI

Faizal Farid Wajidi is an Independent Principal Consultant, specializing in HSE & Risk Management, Environmental Assessment, Health Physics and nuclear applications. He has more than 35 years of professional experience, mainly spent in the major hazard sector.

In the field HSE & Risk Management, Faizal has broad experience of applying risk management tools and has applied the software-based Bowtie tool for offshore HSE Case studies. Among the earliest users of the BowTieXP software, he is a qualified and experienced Bowtie workshop facilitator having led several HSE risk- and Enterprise risk-based Bowtie workshops for safety regulators and for major companies in the oil and gas, petrochemical, road transportation, infrastructure (co-generation, district cooling, biomass, piped gas, desalination), engineering, oil-well services, maritime and aviation/aerospace sectors in Malaysia, Indonesia and Singapore.

Faizal has previously worked with Shell, Schlumberger, ICI Physics and Radioisotope Services Group, Risktec and DNV GL He graduated from the University of Reading, United Kingdom, with a B.Sc (Hon) degree in Mechanical Engineering and Mathematics.

BowTieXP
Advanced Practitioner
Official Certified Partner

Faizal is the first of the Netherlands-based Wolters Kluwer Enablon (ne, CGE Risk)'s partners in the South East Asia region to undergo the Advanced Practitioner level certification, a scheme introduced in early 2020. He is now a proud bearer of the "Advanced Practitioner" badge.

IncidentXP
Practitioner
Official Certified Partner

As South East Asia's sole participant, Faizal completed an "AuditXP and IncidentXP Train-the-Trainers" online course conducted by Wolters Kluwer Enablon in April 2021, the first in a new series of stand-alone courses involving the AuditXP and IncidentXP tools on their own. He was subsequently certified to "Practitioner" level in May 2021, based on Wolters Kluwer Enablon's certification criteria.

FEEDBACKS FROM OUR PAST PARTICIPANTS

"'Good to have this training as introduction and familiarization to the risk assessment and bowtie technique."

QHSE Engineer, Vantage Oilfield Solutions Sdn Bhd

"'A very experience Instructor. Can answer all questions regarding this subject."

HSE Executive, RUHM Marine Sdn Bhd

"'This training is important thing to identify major accident hazard and can be applied to develop comprehensive risk assessment (Bowtie)"

Petronas Carigali Muriah Ltd

HRD CORP CLAIMABLE

REGISTRATION FORM

TRAINING DETAILS

Title : Bowtie Barrier-Based Risk Management for Practioners
Date : 13 - 14 September 2022
Venue : Kuala Lumpur

Individual Price	Grouping Price (min. 3 pax)
RM 3,400 / pax	RM 3,200 / pax

RM 100 Discount** for **MOGEC Member (Individual Price)

*Register before **7 September 2022***

PARTICIPANTS

Name : .....
Job Title : .....
Telephone : .....
Email : .....

Name : .....
Job Title : .....
Telephone : .....
Email : .....

Name : .....
Job Title : .....
Telephone : .....
Email : .....

Note : Please attach a list of participants if insufficient space.

AUTHORISATION

Name : .....
Job Title : .....
Telephone : .....
Email : .....

ORGANISATION

Name : .....
Telephone : .....
Fax : .....

SEND INVOICE TO

Department : .....
Address : .....
.....
.....

PAYMENT DETAILS

1. Participants are required to pay before or on the first day of the course.

2. (Please Tick Where Applicable)

☐ Cheque made payable to Pace Up Sdn. Bhd.

☐ Credit Card senangPay

☐ Bank Transfer : Pace Up Sdn. Bhd.
Sdn. Bhd. Bank : Malayan Banking Bhd.
Bank Address : Taman Setiawangsa Branch,
Wisma Prima Peninsular,
2, Jalan Setiawangsa 11,
Taman Setiawangsa,
54200 Kuala Lumpur

Account No. : 562188319491
Swift Code : MBBEMYKL

(All bank charges to be borned by payer. Please ensure that Pace Up receives the full invoiced amount.)

3. We do not give refunds for cancellations. However, you may substitute participant (s) at any time.

4. If we receive cancellations in writing more than (7) days before the training course, you will receive a 100% credit (valid for one year) to be used for another training course.

5. Cancellations received less than seven days before to the training course may result no credit for future training.

6. If we postpone training course, participant payments for the postponed course will be 100% credited towards the course at a rescheduled date.

7. We shall assume no liability whatsoever in the event this training course is cancelled, rescheduled or postponed.

IN HOUSE TRAINING SOLUTION

☐ Yes, I would like to organise this training course in-house and save up to 50% of total course fees! Please send me more information.

Please complete this form and fax to ***+603 2858 5285*** or, scan and email to ***azmirul@paceup.com.my***

For more info, please call ***Azmirul*** at ***+60 19 275 4900***

MOGEC
MALAYSIAN OIL & GAS ENGINEERING COUNCIL

HRD CORP CLAIMABLE