





Human Error Analysis & Prevention







Singapore



# Human Error Analysis & Prevention

course code: S7022 From: 3 - 7 February 2025 Venue: Singapore - course Fees: 5500 Euro

#### Introduction

Human errors refer to the environmental, organisational and job factors, and human and individual characteristics which influence the behaviour at work in a way which can affect an organisation's health and safety performance. A simple way to view human error is to think about three aspects: the job, the individual and the organisation and how they interact to impact on health and safety related human behaviour.

After an accident involving human failure - using human error analysis tools can identify the causes and contributing human error factors. Establishing these underlying causes of an accident/incident is the key to preventing similar human error accidents/incidents.

This course is aimed at providing delegates with the practical on-site knowledge and skills to develop and successfully implement effective human error analysis techniques.

#### **Objectives**

# Participants attending the programme will:

- Explain the various human error analysis techniques and how they can be used
- Show how human behaviour can lead to human errors and incidents/accidents
- Provide practical ideas and methods for observing and preventing human errors
- Review practical case studies to show how other organisation have used human error analysis techniques to prevent human errors in the workplace

#### **Training Methodology**

Delegates will learn by active participation through inspiring presentation tools and interactive techniques presented in a lively, enthusiastic and interesting style. Delegates will take part in practical human error analysis exercises and group discussions, as related to their own organisation's workplace activities.

# **SEMINAR OUTLINE**

#### DAY 1

# **Introduction to Human Error**

- What is human error?
- Understanding the different types of human error
- Human Error related workplace and job task causation factors
- Human failures in the causes of accidents/incidents
- Exercise: Define human error and prevention objectives

#### DAY 2

#### **Human Error Analysis Factors**





- Managing Rule-Breaking situations (Violations)
- Human behaviour patterns leading to human errors
- Cultural behaviour and sensory and perception
- Using the Shell 'Hearts and Minds' toolkit to improve human behavioural factors
- Exercise: List the different types of human errors and prevention options

# DAY 3

# **Observation Methods for Unsafe Acts and Conditions**

- Using the Dupont 'STOP' on-site safety observation tool for
  - Observing Substandard Practices and behaviour
  - Observing Substandard Conditions
- Using 'Job Safety Analysis' to identify and assesses types of human errors
- Exercise: Identify human errors of presented accident scenario

# DAY 4

# **Human Error Analysis Techniques**

- Analysing site operations human error situations
- Using the 'Human Reliability Assessment' (HRA) human error analysis technique
- Human error observation and prevention options
- Options and Solutions for preventing human errors
- Exercise: Using Fault Tree Analysis method to analyse human errors

# DAY 5 Human Error Analysis & Prevention - Getting Started

- Identifying and categorising human errors in the workplace
- Considering Human factors when analysing incidents and accidents
- Review of Human factors in existing work methods and procedures
- Human error analysis within the health and safety management syst
- Exercise: Checklist for observing human errors in the workplace
- Course Review: Key points summary of course topics



