

MANAGING HUMAN ERROR

Knowledge requirements for course attendees

The course has three main parts and two supplementary modules, as shown below.

- Part 1: How Things Go wrong
- Part 2: Building a Safe Culture
- Part 3: Building a Human Error Reduction Operation (HERO)

The knowledge requirements for those having completed the course are organised around three main parts.

Part 1: How Things Go Wrong

- An appreciation of the extent of the human error problem in hazardous industries.
- An understanding of the nature of human error and of the role of under-specification in its production.
- An awareness of the varieties of unsafe acts and, in particular, of the distinction between errors and violations (see Part 4 for more detailed instruction).
- An understanding of the distinction between individual and organisational accidents (see also Part 5 for a detailed analysis of a number of organisational accidents in different domains. In each case, consider:
 - What defences failed and how?
 - What unsafe acts were committed?
 - What local factors provoked these acts?
 - What organisational and cultural factors were implicated?
 - How could we prevent recurrences?)
- Knowing and understanding the differences between the person and the system approaches to dealing with unsafe acts.
- Appreciating that Lost Time Injury Frequency Rates do not necessarily predict the likelihood of organisational accidents.
- Understanding the crucial role played by defences, barriers and safeguards in the occurrence of organisational accidents as represented by the Swiss Cheese model.
- Being aware of the conflict between production and protection and of the tradeoffs this can engender.

Part 2: Building a Safe Culture

- An appreciation of the significance of a safe culture, despite its definitional problems.
- Understanding the component elements of a safe culture and their inter-relationships: a just culture, a reporting culture, and an informed culture.
- Knowing the important distinctions that underlie the creation of a just culture.
- Understanding the impact of culture upon the system as a whole.

Part 3: Building a Human Error Reduction Operation (HERO)

- Knowing the basic elements of error management.
- Appreciating that there is no one best way.
- Recognising that the same situations keep producing the same errors in *different* people—recurrent error traps. Give examples from own area of work.
- Appreciating the varieties of reactive outcome measures and their implications for safety management.
- Know something of proactive process measures of a system's safety health and how they work together with reactive outcome measures.
- Understand the significance of five fundamental policies underlying the running of the HERO
 - Zero tolerance for reckless behaviour
 - Blame-free reporting for other unsafe acts (honest errors)
 - The importance of a safety information system for identifying recurrent error traps
 - Mental skills that enable the detection and recovery of errors
 - Collective mindfulness of operational dangers.

Good luck with the training.

Jim Reason