

SkillsFest25 A best practice approach for training in major hazard industries

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About Cogent Skills

A not-for-profit charitable organisation owned by the key Trade Associations from the science industries, with a family of commercially focused companies committed to supporting the skills, needs and ambitions across the UK science and technology sector.

Working within strategic partnerships for:

- Culture and behaviours within major accident hazard industries
- Nuclear skills
- Hydrogen skills
- Climate adaptation and resilience



The development of the UK Process Safety Management Framework

Where did it all begin?

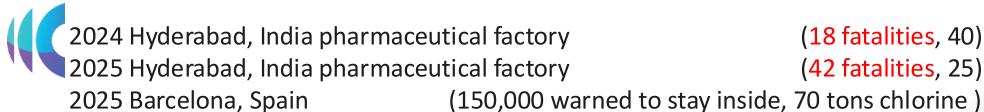




The development of the UK Process Safety Management Framework

Why was it needed?

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1974 Flixborough, UK
                                                              (28 fatalities, 36 injured)
                                   (3,000 animals killed, 70,000 animals slaughtered)
1976 Seveso, Italy
1986 Bhopal, India
                                          (3,500-25,000 fatalities, 150,000-200,000?)
                                                               (30 fatalities, <>9,000?)
1986 Chernobyl, Russia
1988 Piper Alpha, UK
                                                                        (167 fatalities)
1998 Longford, Australia
                                                                         (2 fatalities, 8)
                                                                    (15 fatalities, 180)
2005 Texas City, USA
                                                                        (0 fatalities, 0)
2005 Buncefield, UK
                                                                      (11 fatalities, 17)
2010 Deepwater Horizon, Gulf of Mexico
2014 Turkey
                                                                    (301 fatalities, 80)
                                                                   (173 fatalities, 797)
2015 Tianjin, China
2020 Beirut, Lebanon
                                                                  (218 fatalities, 7000)
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Clear expectations

Following the Buncefield explosion and the subsequent court case, the Principal Inspector from the UK Health Safety Executive asked the following three questions.

To which I would like to add

Do we understand what can go wrong

.... and is everyone who needs to know this fully aware

Do we know what our systems are to prevent this from happening

.... and are we clear that all our people are fully competent

Do we have information to assure us they are working effectively

.... and are we assuring ourselves that our people remain aware and fully competent



Creating process safety training standards





Creating process safety training standards

2010:

UK senior leaders, trade bodies, trade unions and government environment and health and safety regulators created a set of Process Safety Leadership Group Principles.

Industry leaders felt they had insufficient awareness and understanding of the key principles of process safety (not to be confused with personal or occupational safety)

Cogent Skills were the right body to help industry create industry training standards for process safety and formed the Process Safety Management Competence Programme Board to develop process safety awareness training

For senior executives
 Process Safety Leadership for Senior Executives
 (PSL)

Process Safety Management Foundations (PSMF)

• For operators <u>Process Safety Management for Operations</u> (PSMO)



What are training standards?

Historically sector skills bodies developed craft, technical or academic skills and knowledge through National Occupational Standards and vocational qualifications

Training Standards help us shift the focus onto training that impacts on organisational culture and behaviours – from the boardroom to the shop floor

They focus participants on what they should know, on what they need to do, and why they need to communicate better across all levels of the organisation.

Our process safety training standards are structured to deliver a consistent message to senior leaders, managers and operators

PSL	PSMF	PSMO
Understand the business case for effective process safety management	Understand the importance and key principles of process safety management.	Understand the meaning and importance of process safety management
Understand the nature of major accidents and how hazards and risks are defined and quantified.	Understand how to identify hazards associated with hazardous substances and process plant	Understand the hazards, risks and consequences associated with hazardous substances and processes
Understand the key elements of process safety management systems	Understand how to assess the risks associated with hazardous substances and process plant	Understand the hazards, consequences and safeguards in the specific process or plant you operate or maintain
Understand assurance processes for effective risk management	Understand the importance of identifying suitable safety critical equipment, implementing key risk control systems and the importance of sustaining their effectiveness	Keeping the process safe - the role of operations (Operator & Maintenance) in ensuring effective process safety
Understand how to promote a positive process safety culture through effective engagement of the workforce	Understand the need for effective measures to limit the consequences of a major accident	Emergency planning and the need for effective measures to limit the consequences of process incidents
Understand the importance of good process safety leadership principles and how to implement them.	Understand how to apply learning from incidents and near misses	Understand the role of Operations in applying learning from incidents and near misses
Understand how to achieve continuous improvement in process safety performance	Understand how to monitor performance to achieve continual improvement in process safety performance	Understand the concept of continual improvement in process safety performance, and Operations role in this



Creating a shared understanding

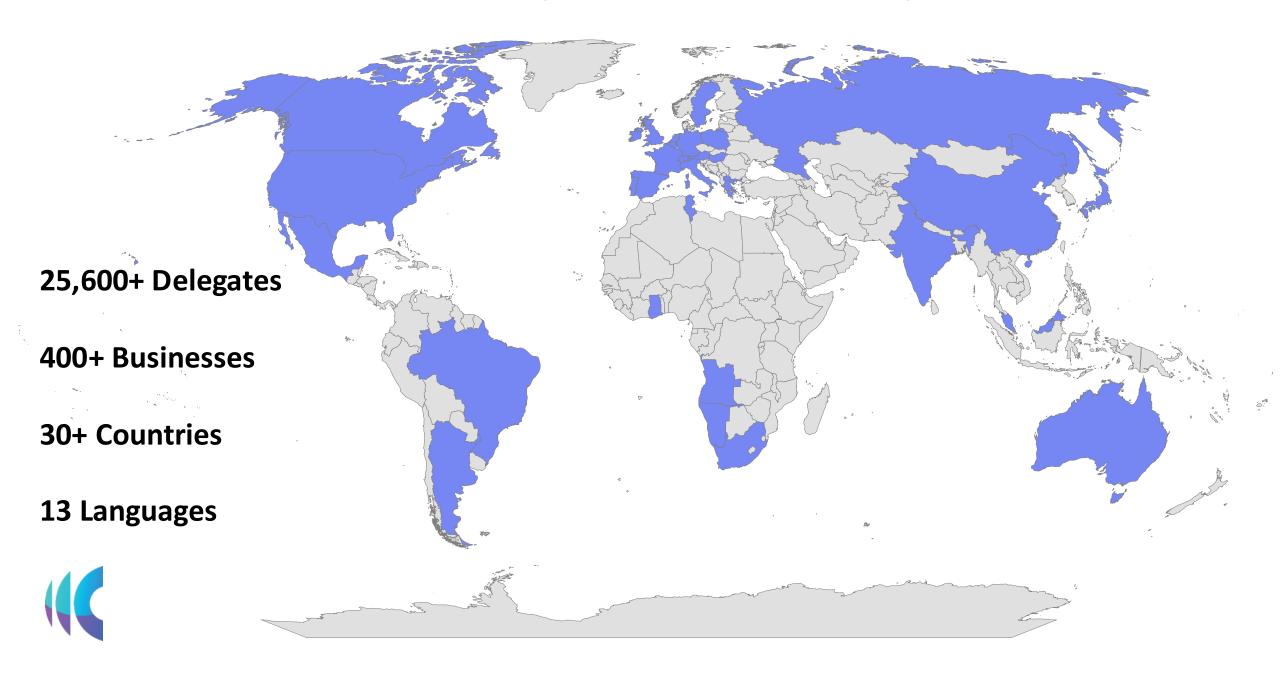
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From a 'standard' UK programme to bespoke global delivery



Process Safety Courses Delivered Globally



Process Safety Leadership for Senior Executives

Process Safety

Management Foundations

Process Safety
Management for
Operations

Process Safety for Site Champions

Permit to Work Awareness

& Management of

Contractors

Permit to Work: Permit Writers and Issuers

Process Safety Awareness

Human Factors Awareness

NEBOSH HSE Certificate in Process Safety Management

NEBOSH HSE Introduction to Incident Investigation

NEBOSH HSE Award in Managing Risks and Risk Assessment at Work NEBOSH National Diploma for Occupational Health and Safety Management Professionals

NEBOSH HSE Certificate in Health and Safety Leadership Excellence SIAS Level 3 Award in Process Safety Management

SIAS Level 3 Award in Process Safety Operations

IOSH Managing Safely

HOW CAN WE HELP?

Contact Us:

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