



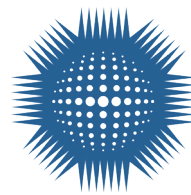
**SAFETY TRAINING
AND CONSULTANCY CENTRE**
مركز السلامة للتدريب والاستشارات



NEBOSH HSE

Certificate in Process

Safety Management



nebosh

LEARNING
PARTNER

BRONZE 558



وزارة العمل والتنمية الاجتماعية
Ministry of Labour
and Social Development



Build Safer Community!

WHY TAKE NEBOSH HSE CERTIFICATE IN PROCESS SAFETY MANAGEMENT?

When things go wrong in the process industry the results can be catastrophic. This has been evidenced by incidents in the past which have led to loss of life and many billions of US dollars' worth of damages. The Deepwater Horizon incident which tragically led to 11 people losing their lives and the total cost to BP was in the region of \$62 billion. The process safety industry is high hazard so having qualified people to manage activities within the industry will lead to safer workplaces. This will help to prevent loss of life but will also help to protect valuable assets and help organizations avoid prosecution and ultimately loss of reputation.

Overview

Process safety management is a blend of engineering and management skills. It focuses on the prevention of catastrophic accidents and near misses associated with loss of containment of energy or dangerous substances such as chemicals and hydrocarbons.

This qualification is designed to cover a range of issues affecting process industries. Topics include:

- Establishment of process management systems
- Asset management and maintenance strategies
- Start-up and shut-down of process plant
- Performance standards for safety critical systems and equipment
- **Hazards and controls for:**
 - chemical reactions
 - bulk storage of dangerous substances
 - fire and explosion
- Purpose and features of emergency plans

Course Details:

Certificate: NEBOSH UK

Duration: 35 Hrs. 9 days

Assessment: Written Examination (Multiple-Choice Examination)

Target Audience:

People from all around the world who work in process industries such as oil and gas, chemicals, plastics and pharmaceuticals. Given the hazardous nature of these industries, this qualification has been designed to give process safety knowledge and understanding to managers, supervisors and safety professionals to allow them to manage their process safety responsibilities.

It is advised that learners should already have an underpinning knowledge of health and safety, and many will hold another NEBOSH qualification.

Admission/Entry Requirements

- There are no specific requirements in terms of academic qualifications, skills, or experience to entry to NEBOSH HSE Certificate in Process Safety Management programme.
- Examination is in English.
- Other internal requirements such as documents needed are at the discretion of STC.

Course Outline

| Day | Content |
|-----|--|
| 1 | 1.1 Process safety management meaning 1.2 Process safety leadership 1.3 Organisational learning 1.4 Management of change |
| 2 | 1.5 Worker engagement 1.6 Competence 2.1 Establishing a process safety management system |
| 3 | 2.2 Risk management techniques used within the process industries 2.3 Asset management and maintenance strategies 2.4 Role and purpose and features of a permit-to-work system |
| 4 | 2.4 Role and purpose and features of a permit-to-work system 2.5 Safe shift handover 2.6 Contractor management |
| 5 | 2.6 Contractor management 3.1 Operating procedures |
| 6 | 3.2 Safe start-up and shut-down 3.3 Safety critical performance standards 3.4 Utilities |
| 7 | 3.4 Utilities 3.5 Electricity/static electricity 3.6 Dangerous substances 3.7 Reaction hazards 3.8 Bulk storage operations |
| 8 | 3.8 Bulk storage operations 4.1 Fire hazards 4.2 Fire and explosion control |
| 9 | 4.3 Dust explosions 4.4 Emergency preparedness |

Learning Outcomes:

Element 1

- Outline the meaning of process safety and how it differs from personal safety
- Explain the role of leadership in process safety management
- Explain the purpose of organisational learning, the sharing of lessons learnt and sources of information
- Explain how 'change' should be managed to effectively reduce risks to people and plant
- Outline the benefits, limitations and types of worker participation and engagement
- Outline what is meant by competence and its importance to process safety.

Element 2

- Outline the purpose and importance of establishing a process safety management system and its key elements
- Outline common risk management techniques used in process industries
- Outline asset management and maintenance strategies for process plant
- Explain the role, purpose and features of a permit-to-work

Explain the key principles of safe shift handover

Explain the principles of selecting, assessing and managing contractors. Outline types of failure modes that may lead to loss of containment from hydrocarbons.

- Outline types of failures that may lead to loss of containment from hydrocarbons.
- Outline the controls available to maintain safety critical equipment.
- Outline the hazards, risks and controls available for safe containment of hydrocarbons.
- Offshore and onshore.
- Outline the fire hazards, risks and controls relating to hydrocarbons.
- Outline the hazards, risks and controls available for operating boilers and furnaces.

Element 3

- Explain the purpose and requirements of standard operating procedures
- Outline the controls that should be adopted to control the safe start-up and shut-down of process plant
- Outline the necessity for performance standards for safety critical systems and equipment and the concept of 'FARSI'
- Outline the hazards and controls associated with the use of steam and water within the process industries
- Outline the hazards and controls associated with electricity / static electricity within the process industries
- Outline the physical forms of dangerous substances and how these can determine process risk
- Outline the hazards presented by chemical reactions and the protective measures used to mitigate the consequences of a thermal runaway reaction
- Outline the hazards and controls available for the bulk storage of dangerous substances.



Benefits to Employers:

Knowledge – The NEBOSH HSE Certificate in Process Safety Management is designed to provide a sound breadth of knowledge that will allow you to contribute to the effective management of process safety risks.

Recognition – This qualification is the result of a unique collaboration which combines the advanced technical 'high hazard' expertise of the HSE with NEBOSH's ability to deliver strong vocational OSH qualifications. HSE has led the way in risk-based regulation, underpinned by the fundamental principle of UK health and safety law – those who create risks are best placed to control them and should do so in a proportionate and practical way.

Career development – Process Safety Management is of vital importance in hazardous process industries such as oil and gas, chemicals, plastics and pharmaceuticals. Holding a qualification designed and assessed by NEBOSH and the HSE can help you stand out.

Progression route and further studies:

By pursuing NEBOSH HSE Certificate in Process Safety Management, the progress route will be a Certificate-level qualification:

- 1- NEBOSH International Technical Certificate in Oil and Gas Operational Safety.
- 2- NEBOSH Environmental Management Certificate.

Syllabus Guide: Learners can refer to the syllabus guide in the below link (in resources section) for more information about the NEBOSH HSE Certificate in Process:

<https://www.nebosh.org.uk/qualifications/nebosh-hse-certificate-in-process-safety-management/>

NEBOSH Learners Terms and conditions

<https://www.nebosh.org.uk/policies-and-procedures/learner-terms-and-conditions/>

Contact for general enquiries or to arrange a meeting with programme advisor :

Loida Buduan:
marketing@stc-bahrain.com

Be a Professional in Health & Safety



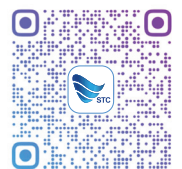
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مركز السلامة للتدريب والاستشارات

Tel. (+973) 17400707 , www.safetytraining.bh

P.O.Box.33011,Salmabad, Kingdom of Bahrain



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