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# NEBOSH HSE Certificate in Process Safety Management

## INTRODUCTION

- It is far too often that accidents in Oil and Gas organisations and other major process industry organisations have occurred with loss of life, catastrophic damage to the environment, asset losses and business disruptions. Accidents like the Texas City Refinery and the Deepwater Horizon have occurred and will continue to occur if the control process is insufficient or ineffective. The process industry (including the Oil Gas and Chemical Industry) requires a high level of expertise for control of hazards.
- The National Examination Board in Occupational Safety and Health (NEBOSH), in collaboration with the UK's Health and Safety Regulator, the Health and Safety Executive (HSE) developed brand new professional qualification "NEBOSH HSE Certificate in Process Safety Management" specifically for process industries. The development of this syllabus by NEBOSH was prompted precisely because of the continuation of accidents in the process industry. This training course is the ultimate in Process Safety Management as it deals with, not only the systems, but how these systems should be utilised and the hazard protections process necessary.

Participants on NEBOSH HSE Certificate in Process Safety Management will develop the following competencies:

- Process Safety Leadership
- Management of Change
- Competence in Process Safety
- Management of Process Risk
- Process Safety Hazard Control
- Fire and Explosion Protection



## PROGRAMME OBJECTIVES

Participants on NEBOSH HSE Certificate in Process Safety Management will:

- Understand what is Process Safety Leadership
- Appreciate how lessons can be learnt
- Identify the key elements of a Process Safety Management system
- Understand Risk management techniques
- Explain the purpose and requirements of standard operating procedures
- Appreciate the controls for safe start-up and shutdown of a process plant
- Recognize the hazards of Bulk storage operations
- Explain fire and explosion hazards relating to process industries
- Learn Hydrocarbon process safety including safe maintenance

## WHO SHOULD ATTEND?

- NEBOSH HSE Certificate in Process Safety Management is aimed at professionals, who are involved in the Process Industry have responsibilities for health and safety and require an internationally recognised measure of competence in this field. This training course is also beneficial to a wide range of delegates including but not limited to:
  - Team Leaders
  - Production, Process, Maintenance Personnel
  - HSE Personnel
  - Supervisors, Safety Representatives
  - Health & Safety Advisors
  - Those involved in Risk Management
  - Graduate Engineers

## TRAINING METHODOLOGY

- NEBOSH HSE Certificate in Process Safety Management is supported with a reference book, lectures supported by Power Point slides, team exercises, questionnaires and videos. Active participation is essential and encouraged during the programme with regular feedback and reviews daily.
- The duration of this NEBOSH HSE Certificate course is 5 days: 4 days class-room training and a 90-minute 40 question multiple-choice exam on .

## PROGRAMME SUMMARY

- NEBOSH HSE Certificate in Process Safety Management covers important aspects of safety within the process industry and includes past accident and the lessons learnt, techniques of risk management in the oil and gas industry, process safety, fire and emergency response.



## PROGRAM OUTLINE

### Process Safety Leadership

- Process safety Management meaning and the difference from personal safety
- The role of process safety leadership
- Organisational learning and sharing lessons learned
- Management of change to effectively reduce risks to process and plant
- Worker engagement benefits and limitations
- Competence and the importance to process safety

### Management of Process Risk

- Establishing a process safety management system
- Risk management techniques used within the process industries
- Asset management and maintenance strategies
- Role and purpose and features of a permit-to-work system
- Safe shift handover
- Contractor Management

### Process Safety Hazard Control

- Operating procedures
- Safe start-up and shut-down
- Safety critical performance standards
- Utilities
- Electricity / static electricity
- Dangerous substances
- Reaction hazards
- Bulk storage operations

### Fire and Explosion Protection

- Fire hazards
- Fire and explosion control
- Dust explosions
- Emergency preparedness



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