

Level 5 Award in Manage Work in Confined Spaces (6150-61)

Unit 514

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Unit 514

Manage work in confined spaces

Unit accreditation number (UAN): F/504/2087

Level: 5

Credit value: 3

Unit aim

This unit focuses on planning, organising and managing work safely in confined spaces including legislative roles and responsibilities, health and safety considerations and equipment requirements.

The unit is designed for managers that are responsible for organising and planning work activities within a confined space. The manager may or may not supervise the actual job.

Learning outcomes

There are **fourteen** learning outcomes to this unit. The learner will be able to:

1. be able to apply the relevant legislative and industry requirements for managing work in confined spaces
2. be able to develop risk assessments relevant to confined spaces work activities
3. be able to identify suitable control measures for work activities to be undertaken in confined spaces
4. be able to develop safe working methods for confined spaces
5. be able to establish effective procedures for using permits to work
6. be able to develop effective emergency arrangements
7. be able to implement and maintain effective arrangements for document storage, review and audit
8. understand legislative and industry confined space requirements for managing work in confined spaces
9. understand how to develop risk assessments relevant to confined spaces work activities to be undertaken
10. understand control measures for work activities to be undertaken in confined spaces
11. understand safe methods of work for confined spaces work activities
12. understand procedures for using permits to work
13. understand how to develop effective emergency arrangements
14. understand procedures for reporting systems and risk assessments.

Guided learning hours

It is recommended that 28 hours should be allocated for this unit. This may be on a full-time or part-time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to NOS ref EUS CS06

Endorsement of the unit by a sector or other appropriate body (if required, otherwise omit)

This unit is endorsed by Energy and Utility Skills.

Assessment and grading

This unit will be assessed by:

- an on-line test
- a practical assignment.

Outcome 1 Be able to apply the relevant legislative and industry requirements for managing work in confined spaces

Assessment criteria

The learner can:

- 1.1 identify work activities that involve confined spaces
- 1.2 explain the meaning of specified risk and its relevance to confined spaces
- 1.3 identify the typical classification of a confined space from its description and work task where relevant
- 1.4 identify legislative and organisational requirements for work activities being undertaken in confined spaces
- 1.5 identify the minimum numbers of persons required to undertake work activities in confined spaces
- 1.6 develop a suitable and sufficient **safe system of work**
- 1.7 identify the competencies of personnel required to work within confined spaces
- 1.8 explain when and how permits to work are to be used to control work in confined spaces
- 1.9 confirm all personnel understand their roles and responsibilities
- 1.10 monitor the safe system of work
- 1.11 audit the safe system of work
- 1.12 review the safe system of work.

Notes for guidance

Safe system of work

Inventory of confined spaces; classification schemes; risk assessment; manufacturers guidelines; organisational procedures; hierarchy of control measures; relevant legislation; training records; calibration / maintenance records; method statements; Permit to Work; fit to undertake confined space records; photos; video footage; evidence of consultation with relevant staff; standards for confined spaces.

Outcome 2 Be able to develop risk assessments relevant to confined spaces work activities

Assessment criteria

The learner can:

- 2.1 identify the **hazards** associated with confined spaces
- 2.2 identify who might be harmed by hazards and how
- 2.3 evaluate the **risks** and the control measures required to mitigate them
- 2.4 record the findings of risk assessments
- 2.5 implement control measures following risk assessments
- 2.6 review and update risk assessments to maintain health and safety.

Notes for guidance

Hazards

Oxygen deficiency; explosive atmospheres; toxic atmospheres; inrush of liquids / free flowing solids; extremes of temperature; diseases and manual handling; working at height; COSHH; noise; electricity; static electricity; vibration.

Specified risks

Serious injury to any person at work arising from a fire or explosion; the loss of consciousness of any person at work arising from an increase in body temperature; the loss of consciousness or asphyxiation of any person at work arising from gas, fume, vapour or the lack of oxygen; the drowning of any person at work arising from an increase in the level of liquid; the asphyxiation of any person at work arising from a free flowing solid or the inability to reach a respirable environment due to entrapment by a free flowing solid.

Outcome 3 Be able to identify suitable control measures for work activities to be undertaken in confined spaces

Assessment criteria

The learner can:

- 3.1 use risk assessments to determine the type and number of control measures for **hazards** at confined space locations to ensure health and safety is maintained
- 3.2 identify the necessary tests required to verify the effectiveness of control measures for hazards
- 3.3 identify the hygiene procedures required for safe working at confined space locations
- 3.4 identify **records** required associated with control measures and the frequency of their renewal.

Notes for guidance

Hazards

Oxygen deficiency; explosive atmospheres; toxic atmospheres; inrush of liquids / free flowing solids; extremes of temperature; diseases and manual handling; working at height; COSHH; noise; electricity; static electricity; vibration.

Records

Job sheet; risk assessment; safe system of work; permit to work; isolation procedure (eg meter); emergency procedures; emergency arrangements; plans; schematic drawings; wearers log books; certificates of competency for using / servicing appropriate working and escape RPE; reporting procedures; hygiene procedures; decontamination procedures; environmental protection procedures; inventory of confined spaces; classification schemes; risk assessment; COSH data sheets; manufacturers guidelines; organisational procedures; hierarchy of control measures; relevant legislation; training records; calibration / maintenance records; method statements; permit to work; fit to undertake confined space records; photos; video footage; evidence of consultation with relevant staff; emergency arrangements; standards for confined spaces.

Outcome 4 Be able to develop safe working methods for confined spaces

Assessment criteria

The learner can:

- 4.1 identify the composition, capabilities and numbers of **work teams** required to accomplish work at confined spaces
- 4.2 identify the need for **specialised equipment** to control hazards
- 4.3 **communicate** the order in which control of hazards is established, verified and maintained to the work team
- 4.4 ensure that effective arrangements are made for dealing with emergency situations that may arise.

Notes for guidance

Work teams

Competences required; training records; fit to undertake confined space records.

Need for specialised equipment

Risk assessment; list of work activities to be carried out; information sources for associated confined space equipment; manufacturer's technical manuals; evidence of consultation with equipment specialists; consultation with experienced workers.

Communicate Emergency Arrangements

Line diagram showing roles / responsibilities – normal / emergency conditions; memos; emails; minutes of meetings; signatures on relevant documents; tool box talks.

Outcome 5 Be able to establish effective procedures for using permits to work

Assessment criteria

The learner can:

- 5.1 identify the work requiring a permit to work at confined spaces
- 5.2 identify the personnel necessary to operate controls provided by permits to work
- 5.3 ensure records and documents required by permits to work are completed
- 5.4 establish procedures to ensure work teams are briefed on their role(s) and duties under permits to work.

Outcome 6 Be able to develop effective emergency arrangements

Assessment criteria

The learner can:

- 6.1 identify emergency responses to risk assessed tasks at confined spaces
- 6.2 develop suitable and sufficient first aid arrangements including a consideration of resuscitation equipment
- 6.3 ensure all personnel have the relevant competency for their role
- 6.4 ensure that emergency response procedures and first aid arrangements are understood by the work team and any third party assistance.

Outcome 7 Be able to implement and maintain effective arrangements for document storage, review and audit

Assessment criteria

The learner can:

- 7.1 ensure confined spaces **documentation** is completed and retained according to legislative and organisational requirements
- 7.2 review documents used for work activities at confined spaces to ensure accurate records are maintained
- 7.3 undertake audits of the management system used to control work activities at confined spaces to ensure that health and safety is maintained.

Notes for guidance

Documentation

Risk assessments; job sheets; safe systems of work; dynamic risk assessment; risk assessment; legislation relevant to Permit to Work; guidance relevant to Permit to Work; organisational procedures relevant to Permit to Work; competences of personnel developing / using Permit to Work; emergency arrangements; risk assessment; legislation relevant to emergency arrangements; organisational procedures relevant to emergency arrangements; competences of personnel developing / using emergency arrangements; document retention periods; policies and procedures for reviewing and auditing associated documents.

Outcome 8 Understand legislative and industry confined space requirements for managing work in confined spaces

Assessment criteria

The learner can:

- 8.1 identify the principal legislation applying to working in confined spaces
- 8.2 identify the approved codes of practice and guidance for working safely in confined spaces
- 8.3 list risk assessments that may need to be produced to comply with work activities being undertaken in a confined space
- 8.4 describe the legislative duty placed upon employer, manager / supervisor and operator associated with confined space work activities
- 8.5 describe organisational requirements relevant to confined space work activities.

Outcome 9 Understand how to develop risk assessments relevant to confined spaces work activities to be undertaken

Assessment criteria

The learner can:

- 9.1 explain the 5-step process to producing **risk assessments**
- 9.2 identify the hazards indigenous to confined space when undertaking work activities
- 9.3 identify the hazards imported to confined space when undertaking work activities
- 9.4 explain the hierarchy of hazard control required by statutes
- 9.5 describe classification schemes used to determine the severity of hazards identified
- 9.6 identify groups of people likely to be affected by work activities associated with confined spaces.

Notes for guidance

Risk assessments

Risk assessment including specialist, ie manual handling; COSHH; working at height; noise; hierarchy of controls measures; guidance notes on risk assessment; organisational risk assessment procedures; classification schemes; verification of staff competences; reviewing associated paperwork; auditing procedures

Outcome 10 Understand control measures for work activities to be undertaken in confined spaces

Assessment criteria

The learner can:

- 10.1 identify **competencies** required for personnel involved in confined space work activities
- 10.2 identify types of **ventilation systems** and circumstances in which their use would be most effective
- 10.3 describe environmental **monitoring equipment** available for confined space work activities
- 10.4 explain environmental monitoring regimes required to enable work to be undertaken safely
- 10.5 describe **equipment for accessing confined spaces**
- 10.6 explain **equipment and tools** compatible for environment of work
- 10.7 describe methods of checking that **equipment and tools** are fit-for-purpose
- 10.8 identify **escape and working Respiratory Protective Equipment (RPE)** available for confined space work activities
- 10.9 identify **Personal Protective Equipment (PPE)** available for confined space work activities
- 10.10 explain relevant measures for effectively controlling specified risks associated with confined space work activities
- 10.11 explain how to evaluate the effectiveness of existing and proposed control measures
- 10.12 identify decontamination procedures.

Notes for guidance

Competencies

Medical exclusions; human factors; ergonomic issues.

Ventilation systems

Natural, forced, exhausting.

Monitoring equipment

Portable and fixed environmental monitors.

Equipment for accessing confined spaces

Warning barriers; warning signs; metal or mesh inserts; long / short handle manual lifting keys; long handled lever types on castors; fixed ladders; hydraulic lifts; approved manriding tripod and winch; pulley system; davit system and other relevant systems.

Equipment and tools

Portable and fixed environmental monitors; access equipment; safety / rescue harness; torch; portable electric lamp; communication devices; appropriate working and escape RPE; lifelines; fall arrest equipment; portable / fixed ventilation equipment; portable lighting; first aid equipment (including resuscitation).

Escape and working Respiratory Protective Equipment (RPE)

Filter, compressed air, chemical oxygen.

Personal protective equipment

High visibility clothing; gloves / gauntlets; safety helmets / bump caps; footwear; safety harness; compatibility with other PPE and appropriate RPE for working and escape purposes; chemical suits.

Outcome 11 Understand safe methods of work for confined spaces work activities

Assessment criteria

The learner can:

- 11.1 identify principle elements needed for a **safe method of work**
- 11.2 identify information sources available to assist in developing a safe method of work
- 11.3 explain the sequence in which confined space work activities are to be carried out
- 11.4 identify plant and equipment required to undertake work activities in confined spaces
- 11.5 describe the roles and responsibilities of those involved in confined space work activities
- 11.6 describe **communication methods** suitable for confined space work activity.

Notes for guidance

Communication methods

Mobile phone; radio; air horns; chalk; whistles; associated organisational devised code(s) of signals; leaky feed.

Safe method of work

Inventory of confined spaces; classification schemes; risk assessment; COSH data sheets; manufacturers guidelines; organisational procedures; hierarchy of control measures; relevant legislation; training records; calibration / maintenance records; method statements; Permit to Work; fit to undertake confined space records; photos; video footage; evidence of consultation with relevant staff; emergency arrangements; standards for confined spaces; line diagram showing roles / responsibilities – normal / emergency conditions

Outcome 12 Understand procedures for using permits to work

Assessment criteria

The learner can:

- 12.1 identify when permits to work should be issued
- 12.2 explain **methods of issuing a permit to work**
- 12.3 explain the relevance of permits to work for confined space activities
- 12.4 identify the principle elements needed for a permit to work
- 12.5 describe the roles and responsibilities of personnel involved in confined space activities under a permit to work system.

Notes for guidance

Methods of issuing a permit to work

Legislation relevant to Permit to Work; guidance relevant to Permit to Work; organisational procedures relevant to Permit to Work; competences of personnel developing / using Permit to Work

Outcome 13 Understand how to develop effective emergency arrangements

Assessment criteria

The learner can:

- 13.1 describe how emergency situations can arise in a confined space
- 13.2 describe the roles and responsibilities of personnel involved in confined space work activities should an emergency arise
- 13.3 identify **communications and reporting systems** for emergency situations
- 13.4 explain the procedures for dealing with emergencies
- 13.5 identify the rescue equipment that may be used in confined spaces
- 13.6 identify the first aid measures, including resuscitation, that may be used in confined spaces
- 13.7 explain the procedures for dealing with the aftermath of an emergency.

Notes for guidance

Communications and reporting systems

Whistles, air horns, radios, telephones, signals, reports required under RIDDOR; accident reports; witness statements; line diagram showing roles / responsibilities – normal / emergency conditions; information sources for associated confined space rescue equipment; manufacturer's technical manuals; evidence of consultation with equipment specialists; risk assessment; emergency arrangements risk assessment; legislation relevant to emergency arrangements; organisational procedures relevant to emergency arrangements; competences of personnel developing / using emergency arrangements; procedure for replenishing used equipment; hygiene procedures for cleaning up affected area

Outcome 14 Understand procedures for reporting systems and risk assessments

Assessment criteria

The learner can:

- 14.1 identify **reporting systems** for routine work activities and resolving problems
- 14.2 explain the processes used to determine the frequency of reviewing risk assessments.

Notes for guidance

Reporting Systems

Near miss incident reporting procedures; defect reporting procedures; depositing completed documentation; document retention periods; policies and procedures for reviewing and auditing associated documents.

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