City & Guilds Qualifications in Confined Spaces (6160)
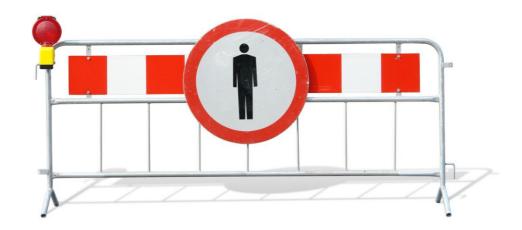
April 2022 Version 3.0

Qualification Handbook

Qualifications at a glance

Subject area	Building and Construction
City & Guilds number	6160
Age group approved	16+
Entry requirements	None
Assessment	Short answer question papers/practical observations/portfolio of evidence
Approvals	Automatic approval
Support materials	Centre handbook Assessment materials
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Version and date	Change detail	Section
1.0 March 2021	Document created	
2.0 April 2021	Updated instructions about pre-requisites	1 Introduction/Structure
2.1 June 2021	Reasonable Adjustment information Grading & pass mark information	Pages 16 and 100 Page 14
2.2 August 2021	Added to range for 6160-04 LO7	Page 56
3.0 April 2022	Added QiW codes	Page 3
	6160-02: AC1.1 Range – added 'ventilation systems' AC6.12 Range – corrected numbering	Section 5
	6160-04: Added 'high risk' context to: Title, Unit aim and LO1 AC1.5 Range – corrected numbering AC5.2 – added Range	Section 5
	Added new qualification 6160-09: GLH/ TQT, Unit content, Supporting Information, Mapping to NOS	Sections 1, 2, 4, 5 and Appendix 1

Title and level	City & Guilds number	Ofqual number	QW Approval/ Designation number	GLH	TQT
City & Guilds Level 2 Award in Working in Low Risk Confined Spaces	6160-01	603/7272/2	C00/4380/7	8	8
City & Guilds Level 2 Award in Working in Medium Risk Confined Spaces	6160-02	603/7273/4	C00/4380/8	16	16
City & Guilds Level 2 Award in Working in High Risk Confined Spaces	6160-03	603/7274/6	C00/4380/9	24	24
City & Guilds Level 3 Award in Control Entry and Arrangements for Confined Spaces (High Risk)	6160-04	603/7275/8	C00/4381/0	24	28
City & Guilds Level 3 Award in Supervising Teams Undertaking Work in Confined Spaces	6160-05	603/7276/X	C00/4381/1	14	16
City & Guilds Level 4 Award in Plan, Manage and Review Legislative and Safety Compliance for Work in Confined Spaces	6160-06	603/7277/1	C00/4381/2	47	75
City & Guilds Level 3 Award in Direct Emergency Rescue and Recovery of Casualties from Confined Spaces	6160-07	603/7278/3	C00/4381/3	8	8
City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces	6160-08	603/7279/5	C00/4381/4	24	24
City & Guilds Level 2 Award in Entrant and Entry Controller for Confined Spaces (Medium Risk)	6160-09	610/0731/6	TBC	16	16

Contents

1   Introduction

This document tells you what you need to do to deliver the qualifications:

Area	Description
Who are the qualifications for?	These qualifications are for those working in confined spaces either in a water or non-water environment. Learners may be undertaking roles in confined spaces at low, medium or high risk levels.
What do the qualifications cover?	The qualifications allow learners to learn, develop and practise the skills required for employment and/or career progression in the utilities sector.
What opportunities for progression are there?	Learners may undertake individual qualifications to progress from low to high risk or they may specialise in emergency rescue and recovery. Depending on their job role some learners may progress to the Level 4 qualification, plan, manage and review legislative and safety compliance for work in confined spaces.
Who did we develop the qualifications with?	The qualifications have been developed from National Occupational Standards produced by the Health & Safety Executive, Energy & Utility Skills (EU Skills), employers and private training companies.
Is it part of an apprenticeship framework or initiative?	No

Structure

The 6160 Confined Spaces suite of qualifications contain eight separate single-unit awards.

There is no requirement to undertake any of them in any order, aside from the entry qualifications that act as pre-requisites for the Level 3 qualifications as shown in the table below:

Qualification	Title	Learners must hold the following pre-requisite qualifications:
6160-05	City & Guilds Level 3 Award in Supervising Teams Undertaking Work in Confined Spaces	If supervising teams in medium or low risk confined spaces, learners must also hold the City & Guilds Level 2 Award in Working in Medium Risk Confined Spaces (6160-02) or City & Guilds Level 2 Award in Entrant and Entry Controller for Confined Spaces (Medium Risk) (6160-09) or an equivalent qualification* If supervising teams in high risk confined spaces, learners must also hold the City & Guilds Level 2 Award in Working in High Risk Confined Spaces Qualification (6160-03) or an equivalent qualification*
6160-07	City & Guilds Level 3 Award in Direct Emergency Rescue and Recovery of Casualties from Confined Spaces	If supervising teams performing rescue and recovery, learners must also hold the City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces qualification (6160-08) or an equivalent qualification*
6160-08	City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces	If working as a rescue and recovery team member, learners must also hold the City & Guilds Level 2 Award in Working in High Risk Confined Spaces qualification (6160-03) or an equivalent qualification*

* Equivalent qualifications must cover the same content as the current National Occupational Standards and be confirmed by the centre. The centre must submit a Centre Update Form (CUF) to their City & Guilds Quality Team to advise of the equivalent qualifications.

Centres **must** always ensure that the learner has achieved the qualification and retained the pre-requisite knowledge before they enrol on a programme. The EQA may request to see evidence of this during their next routine quality activity. Evidence should be certified copies of certificates, supported by notes from a professional discussion or a 'skills scan' that has been reviewed by a qualified assessor.

6160-06 City & Guilds Level 4 Award in plan, manage and review legislative and safety compliance for work in confined spaces
Centres must ensure that learners have suitable knowledge and experience and have completed **one** of the following qualifications prior to commencing the qualification:
- NEBOSH National General Certificate in Occupational Health and Safety
- NEBOSH International General Certificate in Occupational Health and Safety

- City & Guilds Level 6 Occupational Health and Safety
- NCRQ Level 6 Certificate in Applied Health and Safety
- NVQ Level 5 or Level 6 in Occupational Health and Safety Practice.

Centres **must** always ensure that the learner has achieved the qualification before they enrol on a programme. The EQA may request to see evidence of this during their next routine quality activity. Evidence should be certified copies of certificates.

Portfolio of evidence for 6160-06

Learners will be expected to complete a portfolio of evidence based on planning and managing work arrangements at high risk confined spaces. These will be assessed by the centre and quality assured by City & Guilds.

City & Guilds number	Level	Qualification title
6160-01	2	City & Guilds Level 2 Award in Working in Low Risk Confined Spaces
6160-02	2	City & Guilds Level 2 Award in Working in Medium Risk Confined Spaces
6160-03	2	City & Guilds Level 2 Award in Working in High Risk Confined Spaces
6160-04	3	City & Guilds Level 3 Award in Control Entry and Arrangements for Confined Spaces (High Risk)
6160-05	3	City & Guilds Level 3 Award in Supervising Teams Undertaking Work in Confined Spaces
6160-06	4	City & Guilds Level 4 Award in Plan, Manage and Review Legislative and Safety Compliance for Work in Confined Spaces
6160-07	3	City & Guilds Level 3 Award in Direct Emergency Rescue and Recovery of Casualties from Confined Spaces
6160-08	3	City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces
6160-09	2	City & Guilds Level 2 Award in Entrant and Entry Controller for Confined Spaces (Medium Risk)

Total Qualification Time

Total Qualification Time (TQT) is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected for a learner to achieve and demonstrate the achievement of the level of attainment necessary for the award of a qualification.

TQT is comprised of the following two elements:

1) The number of hours which an awarding organisation has assigned to a qualification for Guided Learning, and

2) an estimate of the number of hours a Learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by - but, unlike Guided Learning, not under the Immediate Guidance or Supervision of - a lecturer, supervisor, tutor or other, appropriate provider of education or training.

Title and level	GLH	TQT
City & Guilds Level 2 Award in Working in Low Risk Confined Spaces	8	8
City & Guilds Level 2 Award in Working in Medium Risk Confined Spaces	16	16
City & Guilds Level 2 Award in Working in High Risk Confined Spaces	24	24
City & Guilds Level 3 Award in Control Entry and Arrangements for Confined Spaces (High Risk)	24	28
City & Guilds Level 3 Award in Supervising Teams Undertaking Work in Confined Spaces	14	16
City & Guilds Level 4 Award in Plan, Manage and Review Legislative and Safety Compliance for Work in Confined Spaces	47	75
City & Guilds Level 3 Award in Direct Emergency Rescue and Recovery of Casualties from Confined Spaces	8	8
City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces	24	24
City & Guilds Level 2 Award in Entrant and Entry Controller for Confined Spaces (Medium Risk)	16	16

2   Centre requirements

Approval

All centres previously approved to offer the 6150 qualifications, will be given automatic approval to offer the following **equivalent** 6160 qualifications:

6150-01 or 6150-51 will be given automatic approval to offer 6160-01 City & Guilds Level 2 Award in Working in Low Risk Confined Spaces

6150-02, 6150-06, 6150-52 or 6150-56 will be given automatic approval to offer 6160-02 City & Guilds Level 2 Award in Working in Medium Risk Confined Spaces

6150-03 or 6150-53 will be given automatic approval to offer 6160-03 City & Guilds Level 2 Award in Working in High Risk Confined Spaces

6150-14 or 6150-54 will be given automatic approval to offer 6160-04 City & Guilds Level 3 Award in Control Entry and Arrangements for Confined Spaces (High Risk)

6150-14 or 6150-54 will be given automatic approval to offer 6160-05 City & Guilds Level 3 Award in Supervising Teams Undertaking Work in Confined Spaces

6150-61 will be given automatic approval to offer 6160-06 City & Guilds Level 4 Award in Plan, Manage and Review Legislative and Safety Compliance for Work in Confined Spaces

6150-05 or 6150-55 will be given automatic approval to offer 6160-07 City & Guilds Level 3 Award in Direct Emergency Rescue and Recovery of Casualties from Confined Spaces

6150-05 or 6150-55 will be given automatic approval to offer 6160-08 City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces

6150-02, 6150-03, 6150-06, 6150-14, 6150-52, 6150-53, 6150-54, 6150-56 and 6160-04 will be given automatic approval to offer 6160-09 City & Guilds Level 2 Award in Entrant and Entry Controller for Confined Spaces (Medium Risk)

Centres not previously offering these qualifications will need to apply for qualification approval through the standard approval process.

To offer this qualification, **new** centres will need to gain both centre and qualification approval. Please refer to the document **Quality Assurance Standards: Centre Approval Process** for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualifications before designing a course programme.

Internal quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications.

Quality assurance includes initial centre approval, qualification approval criteria and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance.

Standards and rigorous quality assurance are maintained by the use of:

* internal quality assurance
* City & Guilds external quality assurance.

In order to carry out the quality assurance role, Internal Quality Assurers (IQAs) must be technically knowledgeable and are expected to hold TAQA and/or equivalent qualifications.

Additionally, those involved in internal quality assurance must:

* have experience in quality management or internal quality assurance
* be familiar with the occupation and technical content covered within the qualification
* be familiar with City and Guilds Quality Assurance Standards.

Resource requirements

Centre staffing

Trainers, assessors and IQAs must be able to demonstrate that they meet the following occupational expertise requirements.

Centre staff may undertake more than one role, eg tutor and assessor or IQA, but cannot internally quality assure their own assessments.

They should:
* be occupationally competent in the areas for which they are delivering training and/or have experience of providing training.This knowledge must be to the same level as the training being delivered

* have a thorough understanding of the national occupational standards/assessment units for the qualifications they are assessing or quality assuring

* hold TAQA and/or equivalent qualifications

* show experience and working knowledge of the assessment and quality assurance processes relating to the context in which they are working

* be technically knowledgeable in the area(s) for which they are delivering training/assessing, with appropriate qualifications

* have credible experience of providing training and assessments

* demonstrate a commitment to continuing professional development and to keeping abreast of the changing environment and practices in confined spaces

- centres must ensure that suitable first aid arrangements are in place at the practical training/assessment facility.

Learner entry requirements

City & Guilds does not set entry requirements for the qualifications beyond the pre-requisites listed on pages 7 and 8. However, centres must ensure that learners have the potential and opportunity to gain the qualifications successfully.

EU skills host the EUSR register for confined spaces. This has a 3-year renewal requirement and can be renewed by re-taking the City & Guilds qualification or an endorsed training programme. The register is available at the following link:

https://www.eusr.co.uk/schemes-programmes/our-industries/cross-industry/confined-spaces/

Age restrictions

City & Guilds cannot accept any registrations for learners under 16 as these qualifications are not approved for under 16s.

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs
- any support and guidance they may need when working towards their qualification
- any units they have already completed which are relevant to the qualification
- confirm it is the appropriate type and level of qualification for their job role and responsibilities
- any medical conditions.

We recommend that centres provide an induction programme, so that the learner fully understands the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

The following resources are available for these qualifications:

Description	How to access
Assessment packs	www.cityandguilds.com
Answer packs	www.cityandguilds.com
Centre resource document	www.cityandguilds.com
Sample question papers	www.cityandguilds.com

Recording documents

Learners and centres may decide to use a paper-based or electronic method of recording evidence. City & Guilds endorses **Learning Assistant,** our ePortfolio system. Learning Assistant is an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: **www.cityandguilds.com/eportfolios**

City & Guilds has developed a set of *Recording forms* for new and existing centres to use as appropriate. *Recording forms* include Practical Observation Checklists and Individual Candidate Summary and Feedback Sheets which have been developed for use by assessors to record assessment decisions and provide feedback. These are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which must be approved for use by the external quality assurer before they are used by candidates and assessors at the centre. Amendable (MS Word) versions of the forms are available on the City & Guilds website.

4   Assessment

Summary of assessment methods

The following assessments will be used for these qualifications:

Level 2 qualifications (6160-01, 6160-02, 6160-03, 6160-09)

- externally set, internally marked short answer question paper
- practical observation

Level 3 qualifications (6160-04, 6160-05, 6160-07, 6160-08)

- externally set, internally marked short answer question paper
- practical observation

Level 4 qualification (6160-06)
- externally set, internally marked short answer question paper
- portfolio of evidence to be internally marked, externally quality assured

City & Guilds will provide the following assessment materials:
- Short answer question papers and answer packs, including different versions
- Practical observation checklists
- Individual candidate summary sheets

The assessment materials are password protected and can be found on the City & Guilds website: **Confined Spaces qualifications and training courses | City & Guilds (cityandguilds.com)**

The passwords are available to registered centres on the Walled Garden.

Short Answer question paper pass marks:

Qualification	% Pass Mark	Maximum Marks	Minimum Marks
6160-01	65	60	39
6160-02	65	60	39
6160-03	65	70	45
6160-04	70	70	49
6160-05	70	80	56
6160-06	70	104	73
6160-07	70	75	52
6160-08	70	80	56
6160-09	65	70	45

Grading

Each qualification is graded as Pass/Fail.

Practical Assessments

Centres **must** provide the following facilities for delivery of the practical skills assessments:

- Adequate facilities for the storage of equipment used in practical assessments including a facility for storing quarantined equipment

- Assessment task briefing room(s) for up to ten candidates. Note: A **maximum** of **five** candidates can be practically assessed at any one time

- Adequate facilities such as showers, toilets, messing and changing facilities, as appropriate to the particular assessment, should be located within close proximity (30 minutes) of the confined space assessment areas

- Adequate security facilities should be provided for candidates' personal belongings

- Simulated confined spaces must have dimensions and structures which allow candidates to experience relevant kinaesthetic sensory changes as well as the deployment of people and materials for the task being assessed. Further information is in the 6160 Centre Resource Document available on the City & Guilds website **www.cityandguilds.com**

- Simulated confined spaces must reflect the confined space classifications (high, medium or low risk) and should provide a range of access openings, which reflect current usage enabling candidates to demonstrate lifting, signing, guarding, entry and exit routines as well as emergency and escape procedures.

All practical assessments should be carried out with due regard to the candidate's safety, health and welfare:

- Written, documented and recorded risk assessments must be available for all aspects of the practical assessments and these should be regularly reviewed and updated

- Centres may supply any or all of the equipment required by a candidate for the practical assessment

- All personal protective equipment (PPE) and other safety items must conform to current best practice or with any standard mentioned in statutes or approved codes of practice published from time to time and meet the requirements of the risk assessment. If candidates provide their own equipment it should conform to standards

- Where PPE items are re-issued to successive candidates the centre must ensure that an adequate hygiene routine is in place for the safety and welfare of each user

- There should be access to a qualified first aider at all times during the practical assessments

- There should be inspection and maintenance staff to monitor PPE and work equipment.

Mobile confined spaces unit

A centre wishing to use a mobile confined spaces unit should complete a Centre Update (CU) form stating they wish to include a mobile unit as part of the centre equipment. Once the mobile unit has been approved, centres must provide their allocated External Quality Assurer (EQA) with an updated plan of use for the mobile unit prior to assessments taking place.

The use of the mobile unit must be approved by the centre EQA for all qualification levels. The mobile unit must be approved for the level of the qualification that is being assessed. The location of the mobile unit should be recorded, and all facilities comply with the scheme requirements.

When a mobile unit is deployed away from the main centre there must be a qualified first aider available and the required first aid equipment and resources applicable to the qualification being delivered.

The mobile confined spaces unit **must** incorporate the following design characteristics:

- Vertical entry deeper than 3 metres, using one or two ladders

- Sufficient space to erect a fall arrest system or personnel winch

- Sufficient space to accommodate **five** candidates and the assessor at the vertical entry point

- Minimum of **30 metres** traverse to allow an entry team to move away from the entry/access point.

Reasonable Adjustments & Access Requirements

The City & Guilds **Centre Document Library** contains information about the City & Guilds approach to reasonable adjustments and access requirements.

Written Assessments

The controlled assessment (short answer written test) must be carried out in a suitable classroom able to accommodate a maximum number of ten candidates.

All written assessments should be conducted according to the Joint Council for Qualifications (JCQ) Instructions for Conducting Examinations (ICE). This document contains detailed information on the administration of examinations before, during and after.

Assessment Types			
Unit	**Title**	**Assessment method**	**Where to obtain assessment materials**
201	Working in low risk confined spaces	001 Externally set, internally marked short answer test 011 Practical observation	www.cityandguilds.com
202	Working in medium risk confined spaces	002 Externally set, internally marked short answer test 012 Practical observation	www.cityandguilds.com
203	Working in high risk confined spaces	003 Externally set, internally marked short answer test 013 Practical observation	www.cityandguilds.com
209	Entrant and entry controller for confined spaces (medium risk)	009 Externally set, internally marked short answer test 019 Practical observation	www.cityandguilds.com
304	Control entry and arrangements for confined spaces (high risk)	004 Externally set, internally marked short answer test 014 Practical observation	www.cityandguilds.com
305	Supervising teams undertaking work in confined spaces	005 Externally set, internally marked short answer test 015 Practical observation	www.cityandguilds.com
307	Direct emergency rescue and recovery of casualties from confined spaces	007 Externally set, internally marked short answer test 017 Practical observation	www.cityandguilds.com
308	Working as a member of a rescue and recovery team in confined spaces	008 Externally set, internally marked short answer test 018 Practical observation	www.cityandguilds.com
406	Plan, manage and review legislative and safety compliance for work in confined spaces	006 Externally set, internally marked short answer test 016 Portfolio of evidence	www.cityandguilds.com

Test specifications

The way the knowledge is covered by each test is laid out in the tables below:

Test: 001	Duration: 1 hour 30 mins		
Unit	**Learning Outcome**	**Number of marks**	**%**
201	6 Understand the principles of working in low risk confined spaces	26	46
	7 Understand standard protocols for working in low risk confined spaces	34	54
	Total	**60**	**100**

The grade boundary for this test is Pass: 65%

Test: 002	Duration: 1 hour 30 mins		
Unit	**Learning Outcome**	**Number of marks**	**%**
202	6 Understand the principles of working in medium risk confined spaces	31	52
	7 Understand standard protocols for working in medium risk confined spaces	29	48
	Total	**60**	**100**

The grade boundary for this test is Pass: 65%

Test: 003	Duration: 1 hour 30 mins		
Unit	**Learning Outcome**	**Number of marks**	**%**
203	6 Understand the principles of working in high risk confined spaces	48	68
	7 Understand standard protocols for working in high risk confined spaces	22	32
	Total	**70**	**100**

The grade boundary for this test is Pass: 65%

Test: 009	Duration: 1 hour 30 mins		
Unit	Learning Outcome	Number of marks	%
209	5 Understand the principles of working in medium risk confined spaces	26	37
	6 Understand standard protocols for work in medium risk confined spaces	16	23
	7 Understand entry controller duties and responsibilities	19	27
	8 Understand equipment checks and inspection required	9	13
	Total	70	100

The grade boundary for this test is Pass: 65%

Test: 004	Duration: 2 hours		
Unit	Learning Outcome	Number of marks	%
304	5 Understand health and safety and environmental legislation	17	24
	6 Understand standard protocols for work in confined spaces	12	17
	7 Understand entry controller duties and responsibilities	29	42
	8 Understand equipment checks and testing required	12	17
	Total	70	100

The grade boundary for this test is Pass: 70%

Test: 005	Duration: 2 hours		
Unit	**Learning Outcome**	**Number of marks**	**%**
305	5 Understand health and safety and environmental legislation	17	21
	6 Understand standard protocols for work in confined spaces	12	15
	7 Understand supervisory duties and responsibilities	39	49
	8 Understand equipment checks and testing required	12	15
	Total	**80**	**100**

The grade boundary for this test is Pass: 70%

Test: 007	Duration: 2 hours		
Unit	**Learning Outcome**	**Number of marks**	**%**
307	4 Understand the principles of working as rescue team leader	45	58
	5 Understand rescue team leader duties and responsibilities	32	42
	Total	**77**	**100**

The grade boundary for this test is Pass: 70%

Test: 008	Duration: 2 hours		
Unit	**Learning Outcome**	**Number of marks**	**%**
308	5 Understand the principles of working as part of a rescue and recovery team	43	54
	6 Understand standard protocols for working in rescue and recovery teams	37	46
	Total	**80**	**100**

The grade boundary for this test is Pass: 70%

Test: 006	Duration: 3 hours		
Unit	**Learning Outcome**	**Number of marks**	**%**
406	5 Understand environmental, legislative and health and safety compliance	38	37
	6 Understand organisational requirements for confined space working	12	11
	7 Understand plant, tools and equipment for working in confined spaces	26	25
	8 Understand emergency arrangements and rescue plans	28	27
	Total	**104**	**100**

The grade boundary for this test is Pass: 70%

5   Qualifications

Structure of the units

The units each have the following:

- City & Guilds reference number
- Title
- Ofqual number
- Level
- Guided learning hours (GLH)
- Relationship to NOS
- Unit aim
- Learning outcomes, which are comprised of a number of assessment criteria.

6160-01　City & Guilds Award in working in low risk confined spaces

Ofqual no:	603/7272/2
Unit	201
Level:	Level 2
GLH:	8
Relationship to NOS:	EUSCS01
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for a low risk related confined space environment. This unit covers both water and non-water industry areas.

Water: this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations or where the operative is working in or near water or where a confined space is subject to surface water flooding.

Non-water: this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities, gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling.

This unit is for anyone working in a low risk environment and includes preparing to enter and work safely, entering and exiting confined spaces safely, using equipment and tools, following procedures and dealing with emergencies. |
| **Assessment type** | Practical observation, short answer question paper |

Learning outcome:

The learner will:

1.　prepare to work safely in low risk confined spaces.

Assessment criteria

The learner can:

1.1　check all **equipment** is in good order, calibrated and/or certified where necessary
1.2　obtain **authorisation** for entry and relevant health and safety **information**
1.3　arrange adequate **communications** for lone-working situations

1.4   maintain a **safety zone**

1.5   carry out a live point of work risk assessment before starting work

1.6   confirm suitable **monitoring equipment** is in place and working before entering the confined space

Range

AC1.1 Equipment:
Portable gas monitor (appropriate to gas hazards), torch, portable electric lamp, electrical equipment low voltage (intrinsically safe if required), fall protection and recovery systems, suitable hand-tools, first aid equipment

AC1.2 Authorisation and **information:**
Job sheet, generic risk assessment, safe system of work, isolation procedure (eg electrical/mechanical), lone working procedures; emergency procedures, hygiene procedures, environmental protection procedures

AC1.3 Communications for lone working:
Mobile phones, lone-working systems

AC1.4 Safety zone:
Barriers, cordons, signing, lighting, guarding

AC1.6 Monitoring equipment:
Must include portable gas monitor(s) but depending on sector could also include Radio Frequency (RF) monitors, dosimeters, noise meters, dust monitor, temperature monitoring equipment, fixed atmospheric monitoring equipment; flow meter; water level monitor/indicator

Learning outcome

The learner will:

2.   enter and exit low risk confined spaces safely.

Assessment criteria

The learner can:

2.1   set up test and record results of **monitoring equipment** before entering a confined space

2.2   check **access equipment** to make sure it is suitable for operational use

2.3   carry out a **safety inspection** on access equipment

2.4   enter and exit the space in line with **procedures**

2.5   **resolve problems** connected to entry or exit in low risk confined spaces

2.6   identify **unsafe activity** and implement suitable control

Range

AC2.1 Monitoring equipment:
Detection of oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature
AC2.2 Access equipment:

Warning barriers, warning signs, metal or mesh inserts, long/short handle manual lifting keys, long handled lever types on castors, fixed and portable ladders, step irons, personnel winch, harness, hydraulic lifts, fall arrest system/device, anchor systems, davit and davit sockets, roped systems

AC2.3 Safety inspection:
Suitability for job, function test, complete, undamaged, in date

AC2.4 Procedures:
Safety awareness, access equipment, risk assessments, method statements, permit to enter, permit to work, gas monitoring records, entry controller records, atmospheric testing/monitoring, use of access equipment, contacting base/depot/control centre, company/employer specific entry and exit procedures

AC2.5 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.6 Unsafe activity such as:
Failure to clip into fall arrest gear, removal of safety barriers, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

---

Learning outcome

The learner will:

3. use equipment and tools safely.

Assessment criteria

The learner can:

3.1   **check** all **equipment** and **tools** are safe and suitable for the job before using them
3.2   check all **personal protective equipment** (PPE) is suitable before using it
3.3   use equipment and tools in accordance with manufacturers' specifications
3.4   use the specified method to introduce equipment and tools into the confined space
3.5   ensure all equipment and tools are recovered from site when work is finished
3.6   carry out **after use checks** on tools and equipment and store in line with manufacturers' instructions

AC3.1 Checks:
Check equipment and tools are clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, function tests, (battery level), inspection/maintenance records, conforms to manufacturers' instructions

AC3.1 Equipment and **tools:**
Portable gas monitor, torch, portable electric lamp, suitable hand-tools, fall arrest systems

AC3.2 Personal protective equipment:
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness

AC3.6 After use checks:
Damage, cleanliness, contamination (decontamination procedures – drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment)

Learning outcome

The learner will:

4. follow working procedures and work safely.

Assessment criteria

The learner can:

4.1 select a suitable **communication method** for the job
4.2 carry out function checks on communications prior to commencing work
4.3 follow **lone working procedures** in advance of starting work
4.4 control access of people, equipment and vehicles around the entry point
4.5 resolve work problems with the designated personnel
4.6 follow company or site owners **safe working procedures**
4.7 follow manufacturers' equipment instructions
4.8 monitor and respond to atmospheric conditions within the confined space regularly
4.9 use **PPE** specified for the job
4.10 demonstrate **vigilance** in controlling risks and hazards
4.11 ensure the work area is safe and secure when work is finished
4.12 complete **documentation and reports** before filing them in the designated place or passing to designated personnel

Range

AC4.1 Communication methods:
Written, verbal, signalling, telephone, intrinsically safe radio, standard radio, mobile phone, data communications, whistles, airhorns

AC4.3 Lone working procedures:
Inform at least one other person, i.e. team leader, supervisor

AC4.6 Safe working procedures:

Risk assessments, live point of work risk assessment, method statements, job sheets, safe systems of work, on site/off site pre-entry briefing, attend relevant health and safety training

AC4.9 PPE:
Overalls, gloves/gauntlets, safety helmet, safety footwear, harness

AC4.10 Vigilance:
Maintaining observation, reporting incidents, maintaining safety of own and others, communicating effectively and efficiently, remaining calm and controlled throughout ensure safety equipment is not misused, follow employer instructions on health and safety matters

AC4.12 Documentation and reports:
Complete relevant documents, i.e., permit to enter, risk assessment, method statement, Atmospheric reading entry and exit times

Learning outcome

The learner will:

5. deal with emergencies.

Assessment criteria

The learner can:

5.1 start **emergency exit procedures** immediately a dangerous situation arises
5.2 communicate effectively
5.3 exit the confined space in line with procedures
5.4 **record and report** the emergency incident and its circumstances

Range

AC5.1 Emergency exit procedures:
Recognise and respond to gas alarm or other incident such as ingress of water, proceed to exit point in an orderly manner, exit and report to appropriate person

AC5.4 Record and report:
Date, time, location, events leading up to emergency incident, those involved/affected and how affected, key instructions/messages received/given, actions taken, arrival time for emergency services or other specialists, collation of and safe return of documents

Learning outcome

The learner will:

6. understand the principles of working in low risk confined spaces.

The learner can:

6.1 identify the main principles of **health and safety, environmental legislation** and **regulations**

6.2 describe the process of risk assessment of working safely in confined spaces

6.3 identify the **types of places** that could become confined due to the presence of a hazard

6.4 describe the hazards that can produce a confined space

6.5 identify **workplace exposure limits** and **properties** in relation to atmospheric conditions

6.6 explain the importance and **limitations of monitoring equipment**

6.7 identify different **types of emergency** situation

6.8 explain **common causes** of emergency situations in a confined space

6.9 describe different **roles** involved in working as part of a confined spaces team

6.10 identify the **job roles** involved in dealing with emergencies

6.11 identify types of **injuries** that may occur to personnel and others at low risk confined spaces

---

Range

AC6.1 Health and safety, environmental legislation, regulations:
- Health and Safety at Work Act
- Confined Spaces Regulations
- Management of Health and Safety at Work Regulations
- Construction, Design and Management Regulations (CDM)
- Control of Substances Hazardous to Health Regulations (COSHH)
- Personal Protective Equipment Regulations (PPE)
- Provision and Use of Work Equipment Regulations (PUWER)
- Lifting Operations Lifting Equipment Regulations (LOLER)
- Construction (Health, Safety and Welfare) Regulations
- First Aid at Work Regulations
- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Work at Height Regulations (WAHR)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Vibration at Work Regulations
- Control of Noise at Work Regulations
- Control of Asbestos Regulations
- Workplace Exposure Limits (EH40)
- Environmental Protection Act
- Wildlife and Countryside Act

AC6.3 Types of places:
A confined space includes chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk

AC6.5 Workplace exposure limits and **properties:**
WEL's:

Short term exposure limit (STEL), Long term exposure limit (LTEL), Time weighted average (TWA)

Gases:
Hydrogen Sulphide (H_2S), Carbon Dioxide (CO_2), Chlorine (CL_2), Ammonia (NH_3), Sulphur Dioxide (SO_2), Nitrogen Oxide (NO), Nitrogen Dioxide (NO_2)

Properties:
Relative density, toxicity, flammability, asphyxiant

AC6.6 Limitations of monitoring equipment:
Ineffective operational range due to temperature, inexperienced operative, exceeds operational range of monitor, out of calibration, defective due to damage, battery failure

AC6.7 Types of emergency:
Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, feeling unwell, bacterial infection, electrocution, disorientation, structure instability

AC6.8 Common causes:
Poor housekeeping, hot works, exhaust fumes, non-intrinsically safe equipment, welding, painting, use of resins, failure of isolations, heavy rainfall, medical event, e.g., underlying medical conditions, injuries caused by slips, trips and falls, tool and person interface, failure of ventilation systems, failure of equipment, loss of communications, lighting system failure, access system failure, cable strike, release of gases from strata, collapse of excavation

AC6.9 Roles:
Entrant, entry controller, supervisor, manager, first aider

AC6.10 Job roles (emergencies):
Person in charge, supervisor of work, rescue team members, first aider or rescue medic, emergency service, rescue team entry controller

AC6.11 Injuries:
Broken bones, cuts, grazes, sprains, strains, unconsciousness, crushing, burns, scalding, electrocution, hypothermia, hypoxia, bites

---

Learning outcome

The learner will:

7. understand standard protocols for working in low risk confined spaces.

Assessment criteria

The learner can:

7.1 identify the confined space **classifications** within the water UK OGN scheme
7.2 explain entry procedures for low risk confined spaces
7.3 describe information required for live point of work risk assessments
7.4 describe **procedures** and **methods** of working for low risk environments
7.5 explain ways to **reduce risk** to an acceptable level
7.6 identify ways of resolving problems when working in low risk confined spaces
7.7 describe precautions to take when lone working
7.8 describe **communication methods** for work in low risk confined spaces

7.9   describe **equipment checks** to be carried out

7.10   describe **reporting systems** for work activities

7.11   explain procedures for dealing with emergencies

7.12   describe **emergency reporting systems**

Range

AC7.1 Classifications:
Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

7.4 Procedures and **methods:**
Method statements, risk assessments, safe work procedures, permits to work, company policies and procedures, roles and responsibilities, emergency plan, isolation statements

7.5 Reduce risk:
Risk assessments, job sheets, safe systems of work, live point of work risk assessment, trained and competent staff, suitable equipment, pre-entry briefings, isolations

7.8 Communication methods:
Verbal, signalling, intrinsically safe radio, standard radio, mobile phone, data communications, whistles, airhorns, tannoy

7.9 Equipment checks:
Check it is clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, cylinder contents, duration, battery level), conforms to manufacturers' instructions, inspection/maintenance records

7.10 Reporting systems:
Communication logs, checklists, gas monitoring records, permits, entry logs, risk assessment method statement review

7.12 Emergency reporting systems:
Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry logs, reporting under RIDDOR

6160-01 City & Guilds Award in working in low risk confined spaces

Supporting Information

Guidance

AC2.5/AC4.5 Problems:
The candidate must be given the opportunity to show they can resolve problems. This must be evidenced through practical simulation.

AC4.8 Monitor atmospheric conditions:
The candidate must regularly show the assessor, without prompting, that they are monitoring atmospheric conditions in the confined space and interpreting and acting upon information obtained from relevant monitor(s).

AC4.10 Demonstrate vigilance to controlling risks and hazards:
The assessor must observe the candidate's behaviour throughout the practical exercise to identify an underlying awareness of possible risks and hazards and the appropriate responses to conditions and situations encountered during the assessment. Typically, the assessor will observe the candidate:

- undertaking risk assessments throughout the exercise to identify risks and hazards
- responding to risks and hazards calmly whilst implementing appropriate control measures
- dealing promptly with emergencies in a calm and controlled manner
- conducting themselves in a safe manner throughout.

AC6.1 Health and safety and environmental legislation:
All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

HSE list of reportable injuries under RIDDOR **https://www.hse.gov.uk/riddor/reportable-incidents.htm**

First aid
As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

6160-02 City & Guilds Award in working in medium risk confined spaces

Ofqual no:	603/7273/4
Unit:	202
Level:	Level 2
GLH:	16
Relationship to NOS:	EUSCS02
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for a medium risk related confined space environment. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations or where the operative is working in or near water or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities, gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for those who work in a medium risk environment and includes preparing to work safely, entering and exiting medium risk confined spaces safely, using equipment and tools safely, following procedures and dealing with emergencies.
Assessment type	Practical observation, short answer question paper

Learning outcome:

The learner will:

1.   prepare to work safely in medium risk confined spaces.

Assessment criteria

The learner can:

1.1   check all **equipment** is in good order calibrated and or certified where necessary
1.2   select and examine escape set breathing apparatus prior to starting work
1.3   obtain **authorisation** for entry and relevant health and safety **information**
1.4   ensure adequate **communication** is in place before entering the confined space

1.5   maintain a **safety zone**

1.6   carry out a live point of work risk assessment before starting work

1.7   ensure that **monitoring equipment** is in place and confirm it is working before entering the confined space

---

Range

AC1.1 Equipment:
Portable gas monitor (appropriate to gas hazards), intrinsically safe torch and portable electric lamp, electrical equipment low voltage (intrinsically safe if required), escape breathing apparatus (open/closed circuit), personnel winch, fall protection systems, harness, suitable hand-tools, first aid equipment, ventilation systems

AC1.3 Authorisation and **information:**
Job sheet, generic risk assessment, safe system of work, method statement, gas monitor readings, top person records, permit to enter, permit to work, isolation procedure (eg electrical / mechanical), emergency procedures, hygiene procedures, environmental protection procedures

AC1.4 Communications such as:
Intrinsically safe mobile phones, intrinsically safe radios, standard radios, data communication systems, verbal, signalling, whistles, airhorns, tannoy

AC1.5 Safety zone:
Barriers, cordons, signing, lighting, guarding

AC1.7 Monitoring equipment:
Must include portable gas monitor(s) but depending on sector could also include Radio Frequency (RF) monitors, dosimeters, noise meters, dust monitor, temperature monitoring equipment, fixed atmospheric monitoring equipment; flow meter; water level monitor/indicator

---

Learning outcome

The learner will:

2.   enter and exit a confined space safely.

Assessment criteria

The learner can:

2.1   set up, test and record results of **monitoring equipment** before entering the confined space

2.2   check **access equipment** to make sure it is suitable for operational use

2.3   carry out a **safety inspection** on access equipment

2.4   enter and exit the space in line with **procedures**

2.5   **resolve problems** connected to entry or exit in medium risk confined spaces

2.6   identify **unsafe activity** and implement suitable controls

AC2.1 Monitoring equipment:
Detection of oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.2 Access equipment:
Warning barriers, warning signs, metal or mesh inserts, long/short handle manual lifting keys, long handled lever types on castors, fixed and portable ladders, step irons, personnel winch, harness hydraulic lifts, fall arrest system/device, anchor systems, davit and davit sockets, roped systems

AC2.3 Safety inspection:
Suitability for job, function test, complete, undamaged, in date

AC2.4 Procedures:
Safety awareness, access equipment, risk assessments, method statements, permits to enter, gas monitoring records, entry controller records, atmospheric testing/monitoring, use of access equipment, contacting base/depot/control centre, company/employer specific entry and exit procedures

AC2.5 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.6 Unsafe activity such as:
Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

Learning outcome

The learner will:

3.   use equipment and tools safely.

Assessment criteria

The learner can:

3.1   **check** all **equipment** and **tools** are safe and suitable for the task before using them
3.2   check all **personal protective equipment** (PPE) is suitable before using it
3.3   use equipment and tools in accordance with manufacturers' specifications
3.4   use the specified method to introduce equipment and tools into the confined space
3.5   ensure equipment and tools are recovered from site when work is finished
3.6   carry out **after use checks** on tools and equipment and store in line with manufacturers' instructions

AC3.1 Checks:
Check equipment and tools are clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, function tests, cylinder contents, duration, battery level), inspection/maintenance records, conforms to manufacturers' instructions

AC3.1 Equipment and **tools:**
Portable gas monitors, escape breathing apparatus (open/closed circuit), torches, portable intrinsically safe lamp, intrinsically safe radios, personnel winch, fall arrest system/device, harnesses, ropes, suitable hand-tools

AC3.2 Personal protective equipment:
Overalls, gloves/gauntlets, safety helmet, safety footwear, harness, respiratory protective equipment (RPE)

AC3.6 After use checks:
Damage, cylinder pressures, cleanliness, contamination (decontamination procedures – drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment)

Learning outcome

The learner will:

4. follow working procedures and work safely.

Assessment criteria

The learner can:

4.1 select a suitable **communication method** for the job
4.2 carry out function checks on communications prior to commencing work
4.3 obtain authorisation for entry from designated people
4.4 control the access of people, equipment and vehicles around the entry point
4.5 resolve problems associated with working in medium risk confined spaces
4.6 follow company or site owners **safe working procedures**
4.7 follow manufacturers' equipment instructions
4.8 monitor and respond to atmospheric conditions within the confined space regularly
4.9 act immediately to remedy any unsafe activity, equipment, and environmental conditions
4.10 use **PPE** specified for the job
4.11 demonstrate **vigilance** in controlling risks and hazards
4.12 complete **documentation and reports** before filing them in the designated place or passing to designated personnel

Range

AC4.1 Communication methods:
Verbal, signalling, intrinsically safe radio, standard radio, mobile phone, data communications, whistles, airhorns, tannoy

AC4.6 Safe working procedures:
Risk assessments, live point of work risk assessment, method statements, job sheets, safe systems of work, on site/off site pre-entry briefing, attend relevant health and safety training

AC4.10 PPE:
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness, RPE

AC4.11 Vigilance:
Maintaining observation, reporting incidents, maintaining safety of own and others, communicating effectively and efficiently, remaining calm and controlled throughout ensure safety equipment is not misused, follow employer instructions on health and safety matters

AC4.12 Documentation and reports:
Permit to enter, risk assessment, method statement, atmospheric readings, entry and exit times

Learning outcome

The learner will:

5.   deal with emergencies.

Assessment criteria

The learner can:

5.1   initiate **emergency exit procedures** immediately a dangerous situation arises
5.2   communicate effectively
5.3   exit the confined space in line with procedures
5.4   carry out post use checks on safety, escape and emergency equipment before storing
5.5   **record and report** the emergency incident and its circumstances

Range

AC5.1 Emergency exit procedures:
Respond to gas alarms or other incidents, use of escape breathing apparatus, exit confined space, internal and external communication

AC5.5 Record and report:
Date, time, location, events leading up to emergency incident, those involved/affected and how affected, key instructions/messages received/given, actions taken, arrival time for emergency services or other specialists, collation of and safe return of documents

Learning outcome

The learner will:

6.   understand the principles of working in medium risk confined spaces.

Assessment criteria

The learner can:

6.1 identify the main principles of **health** and **safety, environmental legislation, regulations** and **guidance**

6.2 describe the process of risk assessment for working safely in confined spaces

6.3 identify the **types of places** that could become confined due to the presence of a hazard

6.4 describe the hazards that can produce a confined space

6.5 describe different types of **ventilation methods**

6.6 identify workplace **exposure limits** and **properties** in relation to atmospheric conditions

6.7 identify different **types of emergency** situations both physical and atmospheric

6.8 explain common **causes of emergency** situations in a confined space

6.9 describe different **roles** involved in working as part of a confined spaces team

6.10 identify the **job roles** involved in dealing with emergencies

6.11 identify types of **injuries** that may occur to personnel and the general public at medium risk confined spaces

6.12 explain the **importance** of **decontamination procedures**

Range

AC6.1 Health and safety, environmental legislation and guidance:
- Health and Safety at Work Act
- Confined Spaces Regulations
- Management of Health and Safety at Work Regulations
- Construction, Design and Management Regulations (CDM)
- Control of Substances Hazardous to Health Regulations (COSHH)
- Personal Protective Equipment Regulations (PPE)
- Respiratory Protective Equipment Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Lifting Operations Lifting Equipment Regulations (LOLER)
- Construction (Health, Safety and Welfare) Regulations
- First Aid at Work Regulations
- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Work at Height Regulations (WAHR)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Vibration at Work Regulations
- Control of Noise at Work Regulations
- Control of Asbestos Regulations
- Workplace Exposure Limits (EH40)
- Environmental Protection Act
- Wildlife and Countryside Act

AC6.3 Types of places:
Chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk

AC6.5 Ventilation methods:
Natural, forced air, exhaust, tandem air systems

AC6.6 Workplace exposure limits and **properties:**
WEL's:
Short term exposure limit (STEL), Long term exposure limit (LTEL), Time weighted average (TWA)

Gases:
Hydrogen Sulphide (H_2S), Carbon Dioxide (CO_2), Chlorine (CL_2), Ammonia (NH_3), Sulphur Dioxide (SO_2), Nitrogen Oxide (NO), Nitrogen Dioxide (NO_2)

Properties:
Relative density, toxicity, flammability, asphyxiant

AC6.7 Types of emergency:
Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, feeling unwell, bacterial infection, electrocution, disorientation, structure instability

AC6.8 Causes of emergencies:
Poor housekeeping, hot works, exhaust fumes, non-intrinsically safe equipment, welding, painting, use of resins, failure of isolations, heavy rainfall, ingress of fluids, flooding, inundation, medical event e.g., underlying medical conditions, injuries caused by slips, trips and falls, tool and person interface, failure of ventilation systems, failure of equipment, loss of communications, lighting system failure, access system failure, cable strike, release of gases from strata, collapse of excavation

AC6.9 Roles:
Entrant, entry controller (top man/person), link person (bottom person) supervisor, manager, first aider

AC6.10 Job roles (emergencies):
Person in charge, supervisor of work, rescue team members, first aider or rescue medic, emergency service liaison

AC6.11 Injuries:
Broken bones, cuts, grazes, sprains, strains, unconsciousness, crushing, burns, scalding, electrocution, hypothermia, hypoxia, bites

AC6.12 Importance:
Minimises the risk of further contamination, minimises any ill health effects, control of hazardous materials, ensure environmental compliance

AC6.12 Decontamination procedures could include**:**
Drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, quarantine and cleaning of contaminated tools and equipment

---

Learning outcome

The learner will:

7.   understand standard protocols for working in medium risk confined spaces.

Assessment criteria

The learner can:

7.1	identify the confined space **classifications** within the water UK OGN scheme
7.2	describe the procedures for live point of work risk assessments
7.3	describe **procedures** and **methods** of working for medium risk environments
7.4	explain ways to **reduce risk** to an acceptable level
7.5	identify ways of resolving problems when working in medium risk confined spaces
7.6	describe **communication methods** for work in medium risk confined spaces
7.7	describe **equipment checks** to be carried out
7.8	describe reporting systems for work activities
7.9	explain procedures for dealing with emergencies
7.10	describe **reporting systems** for emergency situations

Range

AC7.1 Classifications:
Water UK OGN (Occasional Guidance Note) - current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

AC7.3 Procedures and **methods:**
Method statements, emergency plan, safe work procedures, permits to work, company policies and procedures, roles and responsibilities, isolation statements

AC7.4 Reduce risk:
Risk assessments, job sheets, safe systems of work, live point of work risk assessment, trained and competent staff, suitable equipment, pre-entry briefings, isolations

AC7.6 Communication methods:
Verbal, signalling, intrinsically safe radio, standard radio, mobile phone, data communications, whistles, airhorns, tannoy

AC7.7 Equipment checks:
Check equipment is clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, cylinder contents, duration, battery level), conforms to manufacturers' instructions, inspection/maintenance records

AC7.10 Reporting systems:
Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry logs, reporting under RIDDOR

6160-02   City & Guilds Award in working in medium risk confined spaces

Supporting Information

Guidance

AC2.5/AC4.5 Problems:

The candidate must be given the opportunity to show they can resolve problems. This must be evidenced through practical simulation.

AC4.8 Monitor atmospheric conditions:

The candidate must regularly show the assessor, without prompting, that they are monitoring atmospheric conditions in the confined space and interpreting and acting upon information obtained from relevant monitor(s). They must also check for other conditions such as fire, power failure, collapse and obstructions to access and these can be verbally reported to the appropriate person.

AC4.12 Demonstrate vigilance to controlling risks and hazards:

The assessor must observe the candidate's behaviour throughout the practical exercise to identify an underlying awareness of possible risks and hazards and the appropriate responses to conditions and situations encountered during the assessment. Typically, the assessor will observe the candidate:

- undertaking dynamic risk assessments throughout the exercise to identify risks and hazards
- responding to risks and hazards calmly whilst implementing appropriate control measures
- dealing promptly with emergencies in a calm and controlled manner
- conducting themselves in a safe manner throughout.

AC4.14 Documentation and reports:

The candidate must be given the opportunity to make reports and complete required documents in line with organisational requirements.

AC6.1 Health and safety and environmental legislation:

All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

HSE list of reportable injuries under RIDDOR https://www.hse.gov.uk/riddor/reportable-incidents.htm

First aid

As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

6160-03 City & Guilds Award in working in high risk confined spaces

Ofqual no:	603/7274/6
Unit:	203
Level:	Level 2
GLH:	24
Relationship to NOS:	EUSCS03
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for a high risk related confined space environment. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations or where the operative is working in or near water or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities, gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for those working in a high risk environment and includes preparing to work safely, entering and exiting high risk confined spaces safely, using equipment and tools safely, following procedures and dealing with emergencies.
Assessment type	Practical observation, short answer question paper

Learning outcome:

The learner will:

1. prepare to work safely in high risk confined spaces.

Assessment criteria

The learner can:

1.1 confirm risk assessment to be current and site specific before starting work
1.2 carry out a live point of work risk assessment before starting work
1.3 maintain **safety zones** and control access and movement
1.4 ensure appropriate **communication** is in place before entering the confined space

1.5 check there are suitable emergency and rescue arrangements in place prior to entry
1.6 carry out pre-operational checks on **equipment** prior to starting work
1.7 select appropriate **personal protective equipment** (PPE)
1.8 resolve problems with rescue and safety equipment and report defects

Range

AC 1.3 Safety zones:
Barriers, cordons, signing, lighting, guarding

AC 1.4 Communication such as:
Intrinsically safe mobile phones, intrinsically safe radios, standard radios, data communication systems, verbal, signalling, whistles, airhorns, also including methods suitable for breathing apparatus face masks, tannoy, motion sensors (ADSU)

AC1.6 Equipment:
Portable gas monitors, intrinsically safe torches, electrical equipment low voltage (intrinsically safe if required), portable electric lamps, ventilation systems, manhole lifting keys, escape and working breathing apparatus (open/closed circuit), airline breathing apparatus, personnel winch, fall protection systems, harness suitable hand tools, first aid equipment

AC1.7 Personal protective equipment:
Overalls, gloves/gauntlets, safety helmet, eye protection, safety footwear, harness, respiratory protective equipment (RPE)

Learning outcome

The learner will:

2. enter and exit high risk confined spaces safely.

Assessment criteria

The learner can:

2.1 set up, test and record **results of monitoring equipment** before entering the confined space
2.2 obtain, set up and check **access equipment** for entry and exit
2.3 obtain **authorisation** for entry and relevant health and safety **information**
2.4 don required breathing apparatus and PPE to complete the work task
2.5 carry and use designated safety, escape and emergency equipment in line with procedures and manufacturers' instructions
2.6 use access equipment to enter and exit confined spaces in line with procedures
2.7 follow employers' safe working procedures
2.8 monitor conditions and levels of risk within confined spaces
2.9 take suitable action to control risks and remedy any unsafe activity, equipment and environmental conditions without delay
2.10 **resolve problems** connected to entry, exit or rescue and recovery work
2.11 identify **unsafe activity** and implement suitable controls

Range

AC2.1 Results of monitoring equipment:

Detection of oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.2 Access equipment including:
Warning barriers, warning signs, metal or mesh inserts, long/short handle manual lifting keys, long handled lever types on castors, fixed and portable ladders, step irons, personnel winch, harness hydraulic lifts, fall arrest system/device, anchor systems, davit and davit sockets, roped systems

AC2.3 Authorisation and **information:**
Job sheet, generic risk assessment, safe system of work, method statement, gas monitor readings, entry controller records, permit to enter, permit to work, isolation procedure (eg electrical/mechanical), emergency procedures, hygiene procedures, environmental protection procedures

AC2.10 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.11 Unsafe activity such as:
Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

Learning outcome

The learner will:

3.   use equipment and tools safely.

Assessment criteria

The learner can:

3.1   **check** all **equipment** and **tools** are safe and suitable for the task before using them
3.2   check all **personal protective equipment (PPE)** is suitable and compatible with other types of PPE
3.3   use equipment and tools in accordance with manufacturers' specifications
3.4   resolve any problems with equipment and tools before and during their use
3.5   use the specified method to introduce equipment and tools into the confined space
3.6   ensure equipment and tools are recovered from site when work is finished
3.7   carry out **after use checks** on tools and equipment and store in line with manufacturers' instructions

Range

AC3.1 Checks:
Check equipment and tools are clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, function tests, cylinder contents, duration, battery level), conforms to manufacturers' instructions, inspection/maintenance records

AC3.1 Equipment and tools:

Portable gas monitors, escape and working breathing apparatus (open/closed circuit), torches, portable intrinsically safe lamp, communication equipment, personnel winch, fall arrest system/device, harnesses, ropes, ventilation systems, suitable hand-tools

AC3.2 Personal protective equipment including**:**
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness, respiratory protective equipment (RPE)

AC3.7 After use checks:
Damage, cylinder pressures, cleanliness, checks for contamination
(Decontamination procedures – drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment)

Learning outcome

The learner will:

4.   follow working procedures and work safely.

Assessment criteria

The learner can:

4.1   select a suitable **communication method** for the job
4.2   carry out function checks on communications prior to commencing work
4.3   obtain authorisation for entry from designated people
4.4   control the access of people, equipment and vehicles around the entry point
4.5   resolve problems connected to the work with the designated/relevant personnel
4.6   follow company or site owners **safe working procedures**
4.7   follow manufacturers' equipment instructions
4.8   monitor and respond to **conditions** within the confined space regularly
4.9   use **PPE** specified for the job
4.10   demonstrate **vigilance** in controlling risks and hazards
4.11   ensure the work area is safe and secure when work is finished
4.12   complete **documentation** and **reports** and file or pass to designated personnel

Range

AC4.1 Communication methods including**:**
Verbal, signalling, telephone, intrinsically safe radio, standard radio, mobile phone, data communication whistles, airhorns, tannoy

AC4.6 Safe working procedures including**:**
Risk assessments, live point of work risk assessment, method statements, job sheets, safe systems of work, on site/off site pre-entry briefing, attend relevant health and safety training

AC4.8 Conditions:
Atmospheric, environmental, structural

AC4.9 PPE:
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness, Respiratory protective equipment (RPE)

AC4.10 Vigilance:

Maintaining observation, reporting incidents, maintaining safety of own and others, communicating effectively and efficiently, remaining calm and controlled throughout, ensure safety equipment is not misused, follow employer instructions on health and safety matters

AC4.12 Documentation and **reports:**
Permit to enter, risk assessment, method statement, atmospheric readings, entry and exit times

Learning outcome

The learner will:

5   deal with emergencies.

Assessment criteria

The learner can:

5.1   carry out pre-use checks on **safety, escape** and **emergency equipment** prior to starting work
5.2   initiate **emergency exit procedures** immediately a dangerous situation arises
5.3   communicate effectively
5.4   follow and maintain emergency procedures throughout incidents
5.5   use appropriate escape equipment for the environment
5.6   carry out post use checks on safety, escape and emergency equipment before storing
5.7   **record** and **report** an emergency incident and its circumstances

Range

AC5.1 Safety, escape and **emergency equipment** including**:**
Safety harness and escape breathing apparatus, full working self-contained breathing apparatus sets or air-line systems

AC5.2 Emergency exit procedures:
Recognise and respond to gas alarm or other incidents such as equipment failure, collapse, fire, explosion or similar, proceed to exit point in an orderly manner, communicate with entry controller and team as required, exit and report to entry controller

AC5.7 Record and **report:**
Date, time, location, events leading up to emergency, those involved/affected, and how affected, key instructions/messages received/given, actions taken, arrival time for emergency services or other specialists, collation of and safe return of documents

Learning outcome

The learner will:

6.   understand the principles of working in high risk confined spaces.

Assessment criteria

The learner can:

6.1   identify the main principles of **health and safety, environmental legislation regulations** and **guidance**

6.2   describe the process of risk assessment for working safely in confined spaces
6.3   identify the **types of places** that could become confined due to the presence of a hazard
6.4   describe hazardous situations within confined spaces
6.5   identify **workplace exposure limits** and **properties** in relation to atmospheric conditions
6.6   identify different **types of emergency** situations
6.7   explain common **causes of emergency** situations in a confined space
6.8   describe different **roles and responsibilities** when working as part of a confined spaces team
6.9   describe different **roles and responsibilities** involved in dealing with emergencies
6.10   identify the importance of following manufacturers' instructions relating to the use of **safety, escape and emergency equipment**
6.11   explain **factors** that could impact on equipment used in confined spaces
6.12   identify **defects** in safety, escape and emergency equipment
6.13   explain ways in which monitoring equipment can **malfunction**
6.14   describe the advantages and disadvantages of different **ventilation systems**
6.15   describe confined space **incidents** and their **effect** on personnel
6.16   explain the importance of **decontamination procedures**

Range

AC6.1 Health and safety, environmental legislation and guidance:
- Health and Safety at Work Act
- Confined Spaces Regulations
- Management of Health and Safety at Work Regulations
- Construction, Design and Management Regulations (CDM)
- Control of Substances Hazardous to Health Regulations (COSHH)
- Personal Protective Equipment Regulations (PPE)
- Respiratory Protective Equipment Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Lifting Operations Lifting Equipment Regulations (LOLER)
- Construction (Health, Safety and Welfare) Regulations
- First Aid at Work Regs
- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Work at Height Regulations (WAHR)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Vibration at Work Regulations
- Control of Noise at Work Regulations
- Control of Asbestos Regulations
- Workplace exposure Limits (EH40)
- Environmental Protection Act
- Wildlife and Countryside Act

AC6.3 Types of places:
A confined space is any place including chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk; ACoP L101 (Safe Work in Confined Spaces)

AC 6.5 Workplace exposure limits and properties:
WEL's:

Short term exposure limit (STEL), Long term exposure limit (LTEL), Time weighted average (TWA)

Gases:
Hydrogen Sulphide (H_2S), Carbon Dioxide (CO_2), Chlorine (CL_2), Ammonia (NH_3), Sulphur Dioxide (SO_2), Nitrogen Oxide (NO), Nitrogen Dioxide (NO_2)

Properties:
Relative density, toxicity, flammability, asphyxiant

AC6.6 Types of emergencies:
Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, physical illness, bacterial infection, electrocution, disorientation, structure instability

AC6.7 Causes of emergencies:
Poor housekeeping, hot works, exhaust fumes, non-intrinsically safe equipment, welding, painting, use of resins, failure of isolations, heavy rainfall, ingress of fluids, flooding, inundation medical event e.g., underlying medical conditions, injuries caused by slips, trips and falls, tool and person interface, failure of ventilation systems, failure of equipment, loss of communications, lighting system failure, access system failure, cable strike, release of gases from strata, collapse of excavation

AC6.8 Roles and responsibilities:
Entrant, entry controller, supervisor, manager, first aider

AC6.9 Roles and responsibilities (emergencies):
Person in charge, supervisor of work, rescue team members, first aider or rescue medic, emergency service liaison, entry team, entry controller/team leader

AC6.10 Safety, escape and emergency equipment:
Breathing apparatus (working set breathing apparatus, airline breathing apparatus), gas monitor, fall protection devices, assisted rescue equipment

AC6.11 Factors:
Equipment factors such as limited time duration, restricted access due to equipment size, length of airline, entanglement, incorrect calibration, external influences on gas monitors eg sealants, silicone, welding fumes, flooding

Personnel factors such as weight limits on access equipment, impact of facial hair on RPE

AC6.12 Defects:
Out of test dates, excessive wear, incorrect standards, damage, modifications

AC6.13 Malfunction of monitoring equipment:
- Gas monitors – incorrect sensors fitted, poisoned sensors, battery life
- Water level indicators – contaminated probes, leaking floats, damaged fins
- Ventilation system – system alarm not functioning
- Dust monitor – blocked filters

AC6.14 Ventilation systems:
Forced air positive pressure displacement fans, extraction fans, vacuum systems, dilution ventilation using inert gas

AC6.15 Incidents:

Structural collapse, falls from height, ingress of water, exposure to hazardous atmospheres, exposure to excessive heat, fire and explosions, cutting into strata, service strikes, use of unsuitable equipment, equipment failure

AC6.15 Effects:
Broken bones, cuts, grazes, sprains, strains, unconsciousness, crushing, burns, scalding, electrocution, hypothermia, heat stress, drowning, hypoxia, bites

AC6.16 Decontamination procedures could include**:**
Drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, quarantine and cleaning of contaminated tools and equipment

---

Learning outcome

The learner will:

7.   understand standard protocols for working in high risk confined spaces.

Assessment criteria

The learner can:

7.1   explain the confined space **classifications** within the water UK OGN scheme
7.2   describe **procedures** and **methods** used for working in high risk environments
7.3   explain ways to **reduce risk** to an acceptable level
7.4   explain ways of resolving problems when working in high risk confined spaces
7.5   describe **communication methods** for work in high risk confined spaces
7.6   describe reporting systems for work activities
7.7   explain the importance of reporting near misses, emergencies and incidents
7.8   describe **reporting systems** for emergency situations

---

Range

AC7.1 Classifications:
Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

AC7.2 Procedures and **methods:**
Method statements, emergency plan, safe work procedures, permits to work, company policies and procedures, roles and responsibilities, isolation statements

AC7.3 Reduce risk:
Risk assessments, job sheets, safe systems of work, live point of work risk assessment, trained and competent staff, suitable equipment, pre-entry briefings, isolations

AC7.5 Communication methods:
Verbal, signalling, intrinsically safe radio, standard radio, mobile phone, data communications, whistles, airhorns, tannoy

AC7.8 Reporting systems for emergencies: Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry logs, reporting under RIDDOR

6160-03 City & Guilds Award in working in high risk confined spaces

Supporting Information

Guidance

AC1.8/2.12/4.5 Problems:
The candidate must be given the opportunity to show they can resolve problems. This must be evidenced through practical simulation.

AC2.1/4.8 Monitor atmospheric conditions:
The candidate must regularly show the assessor, without prompting, that they are monitoring atmospheric conditions in the confined space and interpreting and acting upon information obtained from relevant monitor(s). They must also check for other conditions such as fire, power failure, collapse and obstructions to access and these can be verbally reported to the appropriate person.

AC4.10 Demonstrate vigilance to controlling risks and hazards:
The assessor must observe the candidate's behaviour throughout the practical exercise to identify an underlying awareness of possible risks and hazards and the appropriate responses to conditions and situations encountered during the assessment. Typically, the assessor will observe the candidate:
- undertaking risk assessments throughout the exercise to identify risks and hazards
- responding to risks and hazards calmly whilst implementing appropriate control measures
- dealing promptly with emergencies in a calm and collected manner
- conducting themselves in a safe manner throughout.

AC4.13 Documentation and reports:
The candidate must be given the opportunity to make reports and complete required documents in line with organisational requirements.

AC6.1 Health and safety and environmental legislation:
All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

Reportable injuries under RIDDOR https://www.hse.gov.uk/riddor/reportable-incidents.htm

First aid
As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

6160-04   City & Guilds Award in control entry and arrangements for confined spaces (high risk)

Ofqual no:	603/7275/8
Unit:	304
Level:	Level 3
GLH:	24
Relationship to NOS:	EUSCS04
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for controlling entry and arrangements at a confined space. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations, or where the operative is working in or near water, or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for the entry controller/top person who controls entry and arrangements for high risk confined spaces without entering them. It includes the duties of an entry controller, pre-entry procedures, entry into and exit from the high risk confined space, maintaining communications and initiating and controlling emergency procedures.
Assessment type	Practical observation, short answer question paper

Learning outcome:

The learner will:

1.   implement procedures for teams working in high risk confined spaces.

Assessment criteria

The learner can:

1.1 interpret the **work plan** to determine activities to be undertaken
1.2 arrange and check that all **equipment** is available prior to entering the site
1.3 carry out pre-operational checks on equipment prior to starting work
1.4 carry out a live point of work risk assessment before starting work
1.5 allocate activities to a **competent work team**
1.6 brief the work team on the nature of the specific confined space
1.7 confirm all team members know and understand their roles
1.8 implement a safety zone around the work site and ensure it is maintained
1.9 confirm communication systems are set up, tested and working before team move away from the entry point

---

Range

AC1.1 Work plan:
This should incorporate the risk assessment, method statement, safe working procedures, permits-to-work, plans, utility drawings, work task, details of equipment required, emergency arrangements

AC1.2 Equipment:
Portable gas monitors, intrinsically safe torches, portable electric lamps, electrical equipment low voltage (intrinsically safe if required), personnel winch, fall arrest/protection systems, safety harnesses, escape and working breathing apparatus (open/closed circuit), airline breathing apparatus, ventilation systems, manhole lifting keys, hand tools, first aid equipment

AC1.5 Competent work team:
Trained and competent personnel, qualified to the confined space entry classification, medically fit, authorised on permit if required

---

Learning outcome

The learner will:

2. control safe entry and exit to the high risk confined space.

Assessment criteria

The learner can:

2.1 check **atmospheric conditions** are safe and record data before the work team enters the confined space
2.2 oversee **procedures** for carrying and using suitable respiratory protective equipment
2.3 check the work team enter and exit in line with procedures
2.4 log team members entry and exit times
2.5 maintain gas monitoring **records** and communications throughout the work activity
2.6 oversee that tools and equipment are introduced into the confined space
2.7 initiate site hygiene procedures
2.8 **resolve problems** connected to entry or exit work in confined spaces
2.9 identify **unsafe activity** and implement suitable controls

2.10   oversee the recovery of equipment and tools from site when work is finished

2.11   close down and make the work area safe when the work is finished

Range

AC2.1 Atmospheric conditions:
Oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.2 Procedures:
Check suitability, duration, condition, level of protection, pre-use checks, function tests, compatibility with other PPE

AC2.5 Records:
Where applicable: gas readings, entry and exit times, pressure gauge readings, temperature readings, flow rates, communication logs, electro-magnetic frequency readings, incident logs, equipment failures, accidents and injuries, near misses, isolations, point of work risk assessment

AC2.8 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.9 Unsafe activity such as:
Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

Learning outcome

The learner will:

3.   monitor the work team to ensure procedures are followed.

Assessment criteria

The learner can:

3.1   **control access** of people, plant and vehicles to the site
3.2   resolve problems relating to team or work activities with designated personnel
3.3   act immediately to remedy any unsafe activity, equipment, or environmental conditions
3.4   continuously **monitor** the work team to ensure safety compliance
3.5   complete reports and documentation for the designated personnel

Range

AC3.1 Control access to site:
Maintain a safety zone, lighting, signing and guarding, restrict access to unauthorised persons

AC3.4 Monitor:
Where applicable: CCTV, data communications, radio communications, verbal communications, link/relay persons, drones, live video

Learning outcome

The learner will:

4.   control emergency situations.

Assessment criteria

The learner can:

4.1   confirm **emergency arrangements** are suitable for the confined space
4.2   confirm suitable emergency systems are available
4.3   extend exclusion zones where required
4.4   liaise with rescue team controller to ensure rescue equipment is in place
4.5   commence emergency procedures immediately a dangerous situation arises
4.6   control exit procedures and use of emergency equipment
4.7   **record and report** the emergency incident and its circumstances
4.8   secure the site for post-incident investigations

Range

AC4.1 Emergency arrangements:
Competent standby rescue team, liaison with rescue team controller, appropriate rescue equipment available, effective communication with designated personnel, first aid, medical competence, arrangements communicated to all stakeholders, notification procedure for emergency services, location plans, rendezvous points, location and contact details of nearest hospital

AC4.7 Record and report:
Date, time, location, events leading up to emergency, those involved/affected, key instructions/messages received/given, action taken, arrival time for emergency services and other specialists, collation and safe return of documents, RIDDOR

Learning outcome

The learner will:

5.   understand health and safety and environmental legislation.

Assessment criteria

The learner can:

5.1   explain the main principles of **health** and **safety** and **environmental legislation**
5.2   describe **hazards, substances, and situations** associated with confined spaces
5.3   explain the importance of live point of work risk assessments
5.4   identify control measures that can be implemented to reduce risk
5.5   describe statutory requirements for first aid arrangements at work

AC5.1 Health and safety and environmental legislation:
- Health and Safety at Work Act
- Confined Spaces Regulations
- Management of Health and Safety at Work Regulations
- Construction, Design and Management Regulations (CDM)
- Control of Substances Hazardous to Health Regulations (COSHH)
- Personal Protective Equipment Regulations (PPE)
- Respiratory Protective Equipment Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Lifting Operations Lifting Equipment Regulations (LOLER)
- Construction (Health, Safety and Welfare) Regulations
- First Aid at Work Regulations
- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Work at Height Regulations
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Vibration at Work Regulations
- Control of Noise at Work Regulations
- Control of Asbestos Regulations
- Workplace Exposure Limits (EH40)
- Environmental Protection Act
- Wildlife and Countryside Act

AC5.2 Hazards, substances, and situations:
Specified risks that may be identified prior to entry to a wholly or partially enclosed space

Learning outcome

The learner will:

6. understand standard protocols for work in high risk confined spaces.

Assessment criteria

The learner can:

6.1 explain the different categories of the Water UK OGN **classification scheme**
6.2 explain **risk weighting factors** in relation to confined spaces
6.3 describe **communication methods** and **lines of communication** for controlling work in confined spaces
6.4 describe **procedures** and **methods** used for working in confined spaces

Range

AC6.1 Classification scheme:
Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

AC6.2 Risk weighting factors including**:**

Types of hazard, complexity of confined space, access and egress, task, number of entrants, equipment and substances in use, environmental considerations

AC6.3 Communication methods:

Written, verbal, signalling, intrinsically safe radios, standard radios, mobile phone, data communication, whistles, air horns, klaxon, tannoy

AC6.3 Lines of communication:

Entry controller may need to communicate with entrants, standby safety team, onsite rescue personnel, supervisor, emergency services, health and safety departments, control rooms, authorised persons, on site security

AC6.4 Procedures and **methods:**

Method statements, emergency plan, safe work procedures, permits to work, company policies and procedures, roles and responsibilities, isolation statements

Learning outcome

The learner will:

    7.   understand entry controller duties and responsibilities.

Assessment criteria

The learner can:

    7.1   describe information in a **pre-entry briefing**
    7.2   explain **key requirements** of a safe entry point
    7.3   describe the advantages and disadvantages of different **ventilation systems**
    7.4   explain the importance of being **vigilant** to changing risks and hazards
    7.5   describe the importance of resolving problems without delay
    7.6   describe confined space **incidents** and their **effect** on personnel
    7.7   explain the importance of **decontamination procedures**
    7.8   explain how to close down and make entry points **safe** and **secure**
    7.9   explain the types of **documentation** used for post activity reporting
    7.10   explain the importance of reporting near misses, emergencies and incidents
    7.11   describe **reporting systems** for emergency situations

Range

AC7.1 Pre-entry briefing:
L101, Approved Code of Practice (ACoP) "Safe Working in Confined Spaces"

AC7.2 Key requirements:
Atmospheric monitoring, access and egress, communications, signing, lighting and guarding, recording systems

AC7.3 Ventilation systems:
Forced air positive pressure displacement fans, extraction fans, vacuum systems, dilution ventilation using inert gas

AC7.4 Vigilant:
Observing activities being carried out, reporting incidents, maintaining safety of self and others, communicating effectively and efficiently, remaining calm and controlled, ensure safety equipment is not misused, follow company procedures, follow employer instructions on health and safety matters

AC7.6 Incidents:
Structural collapse, falls from height, ingress of water, exposure to hazardous atmospheres, exposure to excessive heat, fire and explosions, cutting into strata, service strikes, use of unsuitable equipment, equipment failure

AC7.6 Effects:
Broken bones, cuts, grazes, sprains, strains, unconsciousness, crushing, burns, scalding, electrocution, hypothermia, heat stress, drowning, hypoxia, bites

AC7.7 Decontamination procedures could include**:**
Drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, quarantine and cleaning of contaminated tools and equipment

AC7.8 Safe and secure:
Lock access points, activate intruder alarms, inform control centre, remove debris, wash down, remove isolations, cordons, scene guard, security

AC7.9 Documentation:
Entry and exit logs, company specific logs, permits to work, point of work risk assessment, method statements, atmospheric readings, temperature readings, site logs, BA control boards, equipment logs, flow rates, communication logs, electro-magnetic frequency readings, incident logs, RIDDOR

AC7.11 Reporting systems for emergencies:
Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry logs, reporting under RIDDOR

Learning outcome

The learner will:

8.   understand equipment checks and testing required.

Assessment criteria

The learner can:

8.1   describe relevant **standards** that relate to PPE and equipment
8.2   explain appropriate **actions** to take when dealing with faulty equipment
8.3   explain procedures needed to prepare, test and use access equipment
8.4   identify the importance of following manufacturers' instructions relating to the use of **safety**, **escape** and **emergency equipment**
8.5   explain **factors** that could impact on equipment used in high risk confined spaces
8.6   identify **defects** in safety, escape and emergency equipment
8.7   explain ways in which **monitoring equipment** can **malfunction**

AC8.1 Standards:
British standards/EN standards (BSEN420, BSEN1146, BSEN12021, BSEN361, BSEN1497)
Atex standards, Cenlec standards

AC8.2 Actions:
Quarantine, remove from service, complete report, inform designated persons, label item with description of fault

AC8.4 Safety, **escape** and **emergency equipment:**
Breathing apparatus (working set breathing apparatus, airline breathing apparatus), gas monitor, fall protection devices, assisted rescue equipment

AC8.5 Factors:
Equipment factors such as limited time duration, restricted access due to equipment size, length of airline, entanglement, incorrect calibration, external influences on gas monitors, eg sealants, silicone, welding fumes, flooding
Personnel factors such as weight limits on access equipment, impact of facial hair on RPE

AC8.6 Defects:
Out of test dates, excessive wear, modifications to equipment, incorrect standards, damage

AC8.7 Monitoring equipment malfunction:
Gas monitors: incorrect sensors fitted, poisoned sensors, battery life
Water level indicators: contaminated probes, leaking floats, damaged fins
Ventilation system: system alarm not functioning
Dust monitor: blocked filters

6160-04   City & Guilds Award in control entry and arrangements for confined spaces (high risk) (high risk)

Supporting Information

Guidance

AC5.1 Health and safety and environmental legislation:

All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

List of reportable injuries under RIDDOR https://www.hse.gov.uk/riddor/reportable-incidents.htm

First aid

As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

6160-05   City & Guilds Award in supervising teams undertaking work in confined spaces

Ofqual no:	603/7276/X
Unit:	305
Level:	Level 3
GLH:	14
Relationship to NOS:	EUSCS05
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for supervising entry and arrangements at a confined space. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations, or where the operative is working in or near water, or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for supervisors of confined spaces. It includes planning and allocating activities for a team, pre-entry procedures, entry into and exit from the confined space, selection of personnel, maintaining communications, and initiating and controlling emergency procedures.
Assessment type	Practical observation, short answer question paper

Learning outcome:

The learner will:

1.   implement procedures for teams working in confined spaces.

Assessment criteria

The learner can:

1.1   produce a **work plan** to determine activities to be undertaken
1.2   arrange for all **equipment** to be available prior to entering the site

1.3   carry out a site/task specific risk assessment

1.4   allocate activities to a **competent work team**

1.5   brief the work team on the nature of the specific confined space

1.6   confirm all team members know and understand their roles

1.7   plan the work site safety zone and carry out checks

1.8   confirm communications systems are set up, tested and working before team move away from the entry point

---

Range

AC1.1 Work plan:
Should incorporate the risk assessment, method statement, safe working procedures, permits-to-work, site plans, utility drawings, work task, details of equipment, briefing statement, emergency arrangements

AC1.2 Equipment:
Portable gas monitors, intrinsically safe torches, portable electric lamps, personnel winch, fall arrest/protection systems, safety harnesses, escape and working breathing apparatus (open/closed circuit), ventilation systems, suitable manhole lifting keys, hand tools, first aid equipment

AC1.4 Competent work team:
Trained and competent personnel, qualified to the confined space entry classification and medically fit, authorised on permit if required

---

Learning outcome

The learner will:

2.   supervise the control of safe entry and exit to the confined space.

Assessment criteria

The learner can:

2.1   confirm that **atmospheric conditions** are safe for entry and data is recorded

2.2   confirm that **procedures** for carrying and using respiratory protective equipment are being followed

2.3   ensure tools and equipment are available for use

2.4   **resolve problems** connected to entry and exit

2.5   identify **unsafe activity** and implement suitable controls

2.6   confirm the confined space is closed down appropriately

---

Range

AC2.1 Atmospheric conditions:
Oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.2 Procedures:
Check suitability, duration, condition, level of protection, pre-use checks, function tests, compatibility with other PPE

AC2.4 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.5 Unsafe activity such as:
Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

Learning outcome

The learner will:

3. supervise the work team to ensure procedures are followed.

Assessment criteria

The learner can:

3.1 supervise the **control of access** of people, plant and vehicles to the site
3.2 resolve any problems connected to the work or team
3.3 act immediately to remedy any unsafe activity, equipment, or environmental conditions
3.4 regularly monitor the work team to ensure **safety compliance**
3.5 audit reports, documentation and store securely upon completion of work

Range

AC3.1 Control of access:
Confirm safety zone is established, lighting, signing and guarding, access restrictions in place

AC3.4 Safety compliance:
Working safely, hazard awareness, temperature, breathing apparatus pressure gauge readings, timings

Learning outcome

The learner will:

4. control emergency situations.

Assessment criteria

The learner can:

4.1 confirm the **emergency arrangements**, procedures and communications systems are in place
4.2 confirm suitable emergency systems are available
4.3 extend exclusion zones where required
4.4 liaise with rescue team controller to ensure rescue equipment is in place
4.5 commence emergency procedures immediately a dangerous situation arises
4.6 control exit procedures and use of emergency equipment

4.7 **record and report** the emergency incident and its circumstances
4.8 secure the site for post-incident investigations
4.9 liaise with entry controller prior to taking control of all emergency procedures

Range

AC4.1 Emergency arrangements:
Competent standby rescue team, liaison with rescue team controller, appropriate rescue equipment available, effective communication with designated personnel, first aid, medical competence, arrangements communicated to all stakeholders, notification procedure for emergency services, location plans, rendezvous points, location and contact details of nearest hospital

AC4.7 Record and report:
Date, time, location, events leading up to emergency, those involved/affected, key instructions/messages received/given, action taken, arrival time for emergency services and other specialists, collation and safe return of documents, RIDDOR

Learning outcome

The learner will:

5. understand health and safety and environmental legislation.

Assessment criteria

The learner can:

5.1 explain the main principles of **health** and **safety** and **environmental legislation**
5.2 describe hazards, substances, and situations associated with confined spaces
5.3 explain the process for carrying out live point of work risk assessments
5.4 identify control measures that can be implemented to reduce risk
5.5 describe statutory requirements for first aid arrangements at work

Range

AC5.1 Health and safety and environmental legislation:
- Health and Safety at Work Act
- Environmental Protection Act
- Confined Spaces Regulations
- Management of Health and Safety at Work Regulations
- Construction, Design and Management Regulations (CDM)
- Control of Substances Hazardous to Health Regulations (COSHH)
- Personal Protective Equipment Regulations (PPE)
- Respiratory Protective Equipment Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Lifting Operations Lifting Equipment Regulations (LOLER)
- Construction (Health, Safety and Welfare) Regulations
- First Aid at Work Regulations
- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Work at Height Regulations (WAHR)

- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Vibration at Work Regulations
- Control of Noise at Work Regulations
- Control of Asbestos Regulations
- Workplace Exposure Limits (EH40)
- Environmental Protection Act
- Wildlife and Countryside Act

Learning outcome

The learner will:

6. understand standard protocols for work in confined spaces.

Assessment criteria

The learner can:

6.1 explain the different categories of the Water UK OGN **classification scheme**
6.2 explain **risk weighting factors** in relation to confined spaces
6.3 describe **communication methods** for work in confined spaces

Range

AC6.1 Classification scheme:
Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

AC6.2 Risk weighting factors including**:**
Types of hazard, complexity of confined space, access and egress, task, number of entrants, equipment and substances in use, environmental considerations

AC6.3 Communication methods:
Written, verbal, signalling, intrinsically safe radios, standard radios, mobile phone, data communication, whistles, air horns, klaxon, tannoy

Learning outcome

The learner will:

7. understand supervisory duties and responsibilities.

Assessment criteria

The learner can:

7.1 describe information required in a pre-entry briefing
7.2 explain **key requirements** of a safe entry and exit point
7.3 explain the importance of being **vigilant** to changing risks and hazards
7.4 describe **information** contained in a handover briefing before taking control
7.5 describe the importance of resolving problems without delay
7.6 explain how to close down and make entry and exit points **safe** and **secure**

7.7   describe the **reporting systems** relevant to the job role

---

AC7.2 Key requirements:
Atmospheric monitoring, access and egress, communications, signing, lighting and guarding, recording systems

AC7.3 Vigilant:
Observing activities being carried out, reporting incidents, maintaining safety of self and others, communicating effectively and efficiently, remaining calm and controlled, ensure safety equipment is not misused, follow company procedures, follow employer instructions on health and safety matters

AC7.4 Information:
Operational objectives – those achieved and outstanding, hazards identified – outlined in a risk assessment, control measures in place or required, existing and proposed deployments, resources available, roles and responsibilities, communication and reporting systems in use, emergency arrangements in place

AC7.6 Safe and **secure:**
Lock access points, activate intruder alarms, inform control centre, remove debris, wash down, remove isolations, cordons, scene guard, security

AC7.7 Reporting systems:
Entry and exit logs, company specific logs, permits to work, point of work risk assessment, method statements, site logs, communication logs, incident logs, handover briefing log, casualty handover report, witness statements, near miss and accident reports, RIDDOR

Learning outcome

The learner will:

8.   understand equipment checks and testing required.

Assessment criteria

The learner can:

8.1 describe relevant **standards** that relate to PPE and equipment
8.2 explain **actions** to take when dealing with faulty equipment
8.3 explain procedures needed to prepare test and use access equipment

---

Range

AC8.1 Standards:
British standards/EN standards (BSEN420, BSEN1146, BSEN12021, BSEN361, BSEN1497) Atex standards, Cenlec standards

AC8.2 Actions:
Quarantine, remove from service, complete report, inform designated persons, label item and describe fault

---

6160-05   City & Guilds Award in supervising teams undertaking work in confined spaces

Supporting Information

Guidance

AC2.6 Confirmation that the confined space is closed down:
The supervisor may be overseeing more than one job. This assessment criterion makes clear that the supervisor is expected to return to the site and confirm that the confined space has been closed down in the correct manner.

AC5.1 Health and safety and environmental legislation:
All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

List of reportable injuries under RIDDOR https://www.hse.gov.uk/riddor/reportable-incidents.htm

First aid
As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

6160-06   City & Guilds Award in plan, manage and review legislative and safety compliance for work in confined spaces

Ofqual no:	603/7277/1
Unit:	406
Level:	Level 4
GLH:	47
Relationship to NOS:	EUSCS06
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for planning, managing and reviewing legislative and safety compliance for work in confined spaces. This unit covers both water and non-water industry areas.

Water: this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations, or where the operative is working in or near water, or where a confined space is subject to surface water flooding.

Non-water: this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling.

This unit is for managers who are responsible for organising planning and managing work in confined spaces. The manager may or may not supervise the actual job. It involves managing the work of others in, or at confined spaces; reviewing legal requirements; ensuring safety compliance; preparing procedures and appropriate documentation; and making suitable arrangements for dealing with emergencies. |
| **Assessment type** | Portfolio of evidence, short answer question paper |

Learning outcome:

The learner will:

1. plan the management of work in confined spaces.

Assessment criteria

The learner can:

1.1 identify hazards related to the confined space in which the work will take place
1.2 complete suitable and sufficient risk assessments
1.3 define the confined space **classification** for the work activity
1.4 determine **resource** requirements for the work activity
1.5 confirm if permits-to-work are required for the work activities
1.6 confirm that all personnel have relevant **competency** for their roles
1.7 plan emergency responses for risk assessed tasks

Range

AC1.3 Classification of confined spaces:
Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries

AC1.4 Resources:
Number of persons, competency requirements of personnel, equipment including emergency equipment, first aid, isolation equipment, spill kits, tools, budgets, timescales, contract requirements, operational requirements/demands, supervisory requirements, administration documents, eg entry logs, gas monitoring

AC1.6 Competency:
Appropriate training, certification for classifications; level of fitness; appropriate skills for job to be undertaken, eg electrical, mechanical, instrumentation

Learning outcome

The learner will:

2. manage confined space teams.

Assessment criteria

The learner can:

2.1 confirm **entry documents** are issued to relevant persons
2.2 confirm personnel and other resources are in place
2.3 ensure that all communications are effective and suitable for the task
2.4 deliver **team briefing** prior to work activities commencing
2.5 manage the chain of command to confirm all work instructions are followed
2.6 analyse data records to ensure compliance and the effectiveness of control measures
2.7 ensure **decontamination procedures** are in place
2.8 ensure permit is cancelled on **completion** of work activities

Range

AC2.1 Entry documents:
Job sheet, permit to enter, risk assessment method statement (RAMS), safe systems of work, point of work risk assessment (POWRA), gas monitoring log, entry log

AC2.4 Team briefing:
Confirm tasks to be undertaken, job roles and responsibilities, methods of communication, scope of works, equipment required, emergency arrangements including first aid, confirm safe systems of work

AC2.7 Decontamination procedures including**:**
Drench showers, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment

AC2.8 Completion:
Work area safe and secure, documentation completed and deposited, documentation retention period, review and audit documents

---

Learning outcome

The learner will:

3. record and review legislation relating to confined spaces.

Assessment criteria

The learner can:

3.1 record the findings of risk assessments
3.2 complete records and documents required by permits to work
3.3 complete organisational documentation and retain according to **legislative requirements**
3.4 review existing legislation, confirm versions and updates

---

Range

AC3.3 Legislative requirements:
*   Health and Safety at Work Act
*   Confined Spaces Regulations
*   Management of Health and Safety at Work Regulations
*   Construction, Design and Management Regulations (CDM)
*   Control of Substances Hazardous to Health Regulations (COSHH)
*   Personal Protective Equipment Regulations (PPE)
*   Respiratory Protective Equipment Regulations
*   Provision and Use of Work Equipment Regulations (PUWER)
*   Lifting Operations Lifting Equipment Regulations (LOLER)
*   Construction (Health, Safety and Welfare) Regulations
*   First Aid at Work Regulations
*   Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
*   Work at Height Regulations (WAHR)
*   Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
*   Control of Vibration at Work Regulations
*   Control of Noise at Work Regulations
*   Control of Asbestos Regulations
*   Workplace exposure Limits (EH40)
*   Lifting Operations Lifting Equipment Regulations (LOLER)
*   Environmental Protection Act
*   Wildlife and Countryside Act

- Relevant Approved Codes of Practice (ACoP)

Learning outcome

The learner will:

4. develop, monitor and confirm procedures for working in confined spaces.

Assessment criteria

The learner can:

4.1 develop and implement safe systems of work for confined spaces
4.2 demonstrate vigilance to controlling risks and hazards that teams are exposed to
4.3 monitor, audit, review **systems** and maintain accurate records
4.4 establish effective arrangements for dealing with emergency situations
4.5 execute statutory compliance audits of the management system used to control work activities

Range

AC4.3 Systems:
Quality assurance, management systems, KPIs, compliance, equipment records, accident, injury and near miss statistics, documents for work activities, eg ongoing logs, emergency, incidents, near misses

Learning outcome

The learner will:

5. understand environmental, legislative and health and safety compliance.

Assessment criteria

The learner can:

5.1 explain what is meant by employer duty of care and employee responsibilities in relation to the Health and Safety at Work Act
5.2 describe the **impact of work activities** on the environment
5.3 explain the importance of **environmental monitoring** to mitigate the environmental impact
5.4 describe the codes of practice and guidance that apply when working in confined spaces
5.5 identify **hazards** associated with working in confined spaces, including who might be harmed and how
5.6 explain the **hierarchy of hazard control** required by statutes
5.7 identify the **procedures** for working safely in confined spaces
5.8 identify **requirements** for **communication** systems used in confined spaces
5.9 identify off-site communication arrangements and reporting systems required in an emergency situation
5.10 state the **advisory requirements** of a confined space permit-to-work
5.11 identify the confined spaces **classification scheme**

AC5.2 Impact of work activities:
Oil spills, hazardous waste, biohazards, inert waste, noise and light pollution, nuisance hazards, pollution of water courses, ground contamination, air pollution, effluent discharge gas releases, structure undermining

AC5.3 Environmental monitoring:
Water samples, asbestos sampling, ground movement monitoring, monitoring noise, air monitoring, habitat surveys including protected areas, eg Site of Specific Scientific interest (SSSi), areas of conservation, Areas of Outstanding Natural Beauty (AONB), archaeology

AC5.5 Hazards:
Atmospheric, structural, environmental, equipment, materials, noise, people

AC5.6 Hierarchy of hazard control:
Mitigation processes and development of hierarchy of control procedures, eg ERIC PD (Eliminate, Reduce, Isolate, Control – PPE, Discipline)

AC5.7 Procedures:
Communication, equipment checks, correct use of equipment, obtaining authorisations, isolations, instructions

AC5.8 Communication requirements:
Frequency, range, licence, intrinsically safe, emergency power supply, simplex and duplex, spacing (tunnel telephones)

AC5.10 Advisory requirements:
Authorisation by competent person, acceptance by a responsible person, formal handover and formal hand back procedures, cancellation (authorisation receipt, acceptance and completion)

AC5.11 Classification scheme:
Water UK OGN (Occasional Guidance Notes) – The Classification & Management of Confined Space Entries (edition 3)

Learning outcome

The learner will:

6. understand organisational requirements for confined space working.

Assessment criteria

The learner can:

6.1 explain **organisational requirements** relevant to confined space work activities
6.2 describe the roles and responsibilities of **groups of people** involved in confined space work activities
6.3 describe **prohibitive factors** which would exclude certain individuals from working in confined spaces
6.4 describe the reporting procedures for routine work activities and problem resolution

AC6.1 Organisational requirements:
Policies and procedures, confined space registers, appointment of designated individuals, authorised persons, competent workforce, occupational health screening, provision of suitable and sufficient equipment, fulfilment of training needs analysis, suitable monitoring systems

AC6.2 Groups of people:
Entrants, entry controllers, rescue team, supervisors, team leaders, person in charge (PIC), supervisor of works (SOW), managers, authorised persons (AP), senior authorised persons (SAP), authorising engineer (AE) non-operational personnel, eg health and safety advisors, first aiders

AC6.3 Prohibitive factors:
Medical conditions**:** injuries, hearing loss, diabetes, epilepsy, obesity, high blood pressure, poor vision, claustrophobia, alcohol or drug addiction, vertigo
Other human factors: attitude, behaviour, competency, age, gender, eg in relation to exposure levels of radiation

Learning outcome

The learner will:

7. understand plant, tools and equipment for working in confined spaces.

Assessment criteria

The learner can:

7.1 explain the circumstances in which different types of ventilation systems are most effective
7.2 identify the suitability of different types of **environmental monitoring equipment** available for confined space work activities
7.3 describe advantages and disadvantages of access equipment for different work situations
7.4 describe the suitability and compatibility of tools and equipment used for specific hazardous environments
7.5 identify different types of RPE and their limitations
7.6 identify **specialised equipment** and the risks that it mitigates
7.7 identify the **sequence** in which confined space work activities should be carried out

Range

AC7.2 Environmental monitoring equipment:
Gas monitors, water level indicators, temperature sensors, noise meters, dust monitors, pressure gauges, flow meters, electro-magnetic frequency monitors, dosimeter

AC7.6 Specialised equipment:
Portable gas monitors, Ex lighting, portable ventilation systems, Ex communication systems, hydraulic lifting keys, AED's, oxygen therapy units, escape and working breathing apparatus, airline breathing apparatus, pumps, personnel winch, fall protection systems, EN 1497 harness

AC7.7 Sequence:
Permitting/authorisations, entry, work activities, task completion, exit, close down, reporting

Learning outcome

The learner will:

8. understand emergency arrangements and rescue plans.

Assessment criteria

The learner can:

8.1 explain the **causes of emergencies** in confined spaces
8.2 explain the procedures for dealing with emergencies
8.3 identify specific **rescue equipment** that may be used in a confined space emergency
8.4 explain the types of **first aid measures** that may be required in a confined space
8.5 explain the **procedures** for dealing with the aftermath of an emergency

Range

AC8.1 Causes of emergencies:
Poor housekeeping, hot works, exhaust fumes, non-intrinsically safe equipment, welding, painting, use of resins, failure of isolations, heavy rainfall, ingress of fluids, flooding, inundation medical event, eg underlying medical conditions, injuries caused by slips, trips and falls, tool and person interface, failure of ventilation systems, failure of equipment, loss of communications, lighting system failure, access system failure, cable strike, release of gases from strata, collapse of excavation

AC8.3 Rescue equipment:
Stretchers, rope access, breathing apparatus, drag sheets, thermal imaging cameras, body bags

AC8.4 First aid measures:
Resuscitation, defibrillation, removal of airway obstruction, treatment for drowning, trauma injuries, electrocution, burns

AC8.5 Procedures:
Debrief, counselling, evidence gathering, security of site, reports

6160-06   **City & Guilds Award in plan, manage and review legislative and safety compliance for work in confined spaces**

Supporting Information

Evidence requirements

Each candidate must produce a portfolio of evidence that demonstrates how they have planned and managed work activities within a high risk confined space.

Guidance

The assessment of this qualification requires assessors to observe candidates individually when planning and managing work activities within a high risk confined space.

AC3.3 Legislative requirements:
All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

List of reportable injuries under RIDDOR https://www.hse.gov.uk/riddor/reportable-incidents.htm

First aid
As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

6160-07 City & Guilds Award in direct emergency rescue and recovery of casualties from confined spaces

Ofqual no:	603/7278/3
Unit:	307
Level:	Level 3
GLH:	8
Relationship to NOS:	EUSCS07
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for directing emergency rescue and recovery of casualties from confined spaces. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations, or where the operative is working in or near water, or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for anyone who directs the activities of a team for rescue or recovery in confined spaces. This may include rescue team leader, coordinator, entry controller/top person or supervisor in relation to rescue and recovery of casualties, planning and preparing for emergency operations, mobilising rescue teams, directing and monitoring rescue activities, reporting and securing sites after incidents or emergencies.
Assessment type	Practical observation, short answer question paper

---

Learning outcome:

The learner will:

1.   plan and prepare emergency operations for a rescue team.

Assessment criteria

The learner can:

1.1 review the current site-specific risk assessment for the entry team

1.2 ensure all **safety, escape** and **emergency equipment** is on site before work commences

1.3 confirm the suitability and compatibility of safety, escape and emergency equipment for rescue and recovery activities

1.4 check suitable and sufficient emergency and rescue arrangements are in place

1.5 ensure emergency equipment and casualty recovery devices are suitably located

1.6 check that appropriate **personal protective equipment** (PPE) has been selected for the entry teams

1.7 set up and test emergency **communications systems**

1.8 resolve problems with rescue and safety equipment and report defects

1.9 set-up exclusion zones to prevent any unauthorised access

1.10 check that emergency team members, relevant support and off-site personnel understand the emergency arrangements

---

Range

AC1.2 Safety, escape and **emergency equipment:**
Portable gas monitors, intrinsically safe torches, portable electric lamps, ventilation systems, manhole lifting keys, escape and working breathing apparatus (open/closed circuit), personnel winch, fall protection systems, hand tools, stretchers, other immobilisation equipment, first aid equipment (including external defibrillator (AED), oxygen therapy or resuscitator)

AC1.6 Personal protective equipment:
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness, respiratory protective equipment (RPE), gas tight suits, fire retardant clothing, surgical disposable gloves, face shields

AC1.7 Communications systems:
Intrinsically safe mobile phones, intrinsically safe radios, standard radios, data communication systems, verbal, signalling, whistles, airhorns, tannoy, motion sensors (ADSU)

The learner will:

2. mobilise a rescue team and direct entry and exit to the confined space.

Assessment criteria

The learner can:

2.1 carry out the live point of work **risk assessment**
2.2 analyse information to assess and adapt the rescue plan to suit the situation
2.3 carry out a pre-entry briefing for the rescue team
2.4 deploy emergency team confirming all team members understand their roles
2.5 oversee pre-use checks on the safety, escape and emergency equipment
2.6 ensure emergency team members adhere to safe working procedures and manufacturers' instructions in the use of safety, escape and emergency equipment
2.7 ensure all team members enter confined space as prescribed for emergencies and maintain a safe means of escape
2.8 introduce safety, escape and emergency equipment as specified in employers' instructions and procedures
2.9 ensure rescue team carry out rescue and recovery activities in line with procedures
2.10 recover and remove equipment and tools in line with procedures when permitted
2.11 record and report **incident** or **emergency details** in line with organisational and legislative requirements
2.12 deposit used equipment in designated safety zone for after use decontamination and servicing
2.13 **resolve problems** connected to entry, exit or rescue and recovery work
2.14 identify **unsafe activity** and implement suitable controls
2.15 oversee the entry of the confined spaces work team

Range

AC2.1 Risk assessment:
Ensure conditions are safe (within acceptable rescue procedure parameters) using appropriate gas monitors, record data

AC2.11 Incident or **emergency details:**
Date, location, events leading up to incident, time of incident, persons/equipment involved, details of incident, key messages received/given, time of rescue team entry/exit from confined space, action taken by rescue team, condition of rescue workers, performance of rescue equipment, known hazardous substances casualty may be exposed to, length of exposure to hazardous substances, if oxygen has been administered, any injuries identified by rescue team, any first aid treatment given, arrival time of emergency services or other specialists, RIDDOR

AC2.13 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.14 Unsafe activity such as:

Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

Learning outcome

The learner will:

3. monitor a rescue team to ensure procedures are followed.

Assessment criteria

The learner can:

3.1 monitor the rescue and recovery procedures
3.2 regularly communicate with the emergency rescue team
3.3 monitor conditions and risks to ensure **compliance with procedures**
3.4 control risks identified with equipment or rescue activity
3.5 demonstrate **vigilance** to controlling risks and hazards
3.6 resolve problems relating to information received from monitoring equipment
3.7 assess priorities and agree treatment of casualties in line with emergency procedures
3.8 arrange for ongoing first aid to be available to recovered surface casualties
3.9 provide sufficient relevant information to emergency services when handing over casualties
3.10 set-up and maintain exclusion zones of relevant areas in line with legislative procedures for **post-incident investigation**
3.11 initiate site hygiene procedures

Range

AC3.3 Compliance with procedures such as:
Working safely; hazard awareness; temperature; breathing apparatus pressure gauge readings; timings

AC 3.5 Vigilance:
Maintaining observation, reporting incidents, maintaining safety of self and others, communicating effectively and efficiently, remaining calm and controlled throughout, ensure safety equipment is not misused, follow employer instructions on health and safety matters

AC3.10 Post-incident investigation:
Secure site and equipment, preserve evidence, record all details, personal statements, photographic evidence, preserve relevant entry documents

Learning outcome

The learner will:

4. understand the principles of working as rescue team leader.

Assessment Criteria

The learner can:

4.1 describe the importance of **risk assessment** for planning a rescue from a confined space

4.2 explain procedures for managing different types of **emergency situations**, incidents and near misses

4.3 describe suitable controls in relation to enhanced hazardous atmospheric conditions

4.4 explain the procedures for directing the movement of casualties

4.5 explain the procedures involved in liaising with emergency services in relation to casualties

4.6 explain the importance of decontamination procedures in relation to exposure to casualty **bodily fluids**

4.7 explain the process of managing equipment that has been identified with defects and/or damage during checks and/or use

4.8 identify the key information to be included on a breathing apparatus entry control board

4.9 explain the importance of being **vigilant** to changing risks and hazards in relation to the job role

4.10 describe the management arrangements for cleaning/**disposal** of contaminated tools, equipment and clothing

---

Range

AC4.1 Risk assessment:
- Five steps to risk assessment HSG 65
- Identify the hazard
- Identify who can be harmed and how
- Assess existing control measures – add additional controls if required
- Record findings
- Review and revise as necessary

AC4.2 Emergency situations:
Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, physical illness, bacterial infection, electrocution, disorientation, structural instability, heat

AC4.6 Bodily fluids:
Blood, urine, faeces, saliva, cerebral fluid

AC4.9 Vigilant:
Observing activities being carried out, reporting incidents, maintaining safety of self and others, communicating effectively and efficiently, remaining calm and controlled, ensure safety equipment is not misused, follow company procedures, follow employer instructions on health and safety matters

AC4.10 Disposal:
Hazardous materials controls in place, licensed carrier

Learning outcome

The learner will:

5. understand rescue team leader duties and responsibilities.

Assessment criteria

The learner can:

5.1 explain the process of carrying out live point of work risk assessments
5.2 describe solutions to different rescue related problems
5.3 describe the **reporting systems** relevant to the job role
5.4 describe the **information** in a pre-entry briefing for the rescue team
5.5 explain **key requirements** of a safe entry and exit point
5.6 describe the information required to develop a **command handover brief**
5.7 describe the importance of resolving problems without delay
5.8 explain the **close down process** for entry and exit points following a rescue

Range

AC5.3 Reporting systems:

Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry and exit logs, entry control board, air consumption tables, handover reports, patient assessment sheets, breathing apparatus records, incident command, incident plan and organisational structure, decision log, reporting under RIDDOR

AC5.4 Information:
- **S**ituation - the overall picture of what is happening including casualties, hazards and control measures
- **M**ission – the objective, plan to be followed, actions to take
- **E**xecution - exactly how we are going to do it - equipment/personnel/tactics
- **A**ny questions – opportunity to ask questions
- **C**onfirmation – seek confirmation of understanding

AC5.5 Key requirements:

Atmospheric monitoring, access and egress, communications, signing, lighting and guarding, recording systems

AC5.6 Command handover brief information:
- **O**perational Objectives - those achieved and those outstanding
- **T**actics in use
- **H**azards Identified - an outline of the risk assessment and the control measures in place
- **E**xisting or proposed deployment
- **R**esources - those available and those requested
- **S**ystem of communication

AC5.8 Close down process:

Preserve evidence, preserve scene, lock access points, activate intruder alarms, cordons, scene guard, security, inform control centre

6160-07   City & Guilds Award in direct emergency rescue and recovery of casualties from confined spaces

Supporting Information

Guidance

Learning Outcome 1

Rescue team leaders may be responsible for overseeing equipment and PPE for both the rescue team and the entry teams depending on the size and scale of their role in relation to the specific work activity.

AC3.5 Demonstrate vigilance to controlling risks and hazards:

The assessor must observe the candidate's behaviour throughout the practical exercise to identify an underlying awareness of possible risk and hazards and the appropriate responses to conditions and situations encountered during the assessment. Typically, the assessor will observe the candidate:

- undertaking dynamic risk assessment throughout the exercise to identify risks and hazards
- responding to risks and hazards calmly whilst implementing appropriate control measures
- dealing promptly with emergencies in a calm and collected manner
- conducting themselves in a safe manner throughout.

AC5.4 SMEAC:

The acronym SMEAC is a shorthand way to remember how to brief, and how briefings are conducted. This is important for the informant and the team to provide a routine and structure to the information flow. The purpose of the 5-paragraph order is to issue an instruction in a clear and concise manner by a thorough orientation of the area of operations.

S – situation

M – mission

E – execution

A – administration/logistics

C – command/signal

What 3 words:

Many emergency services around the world now accept 3-word addresses from callers who would otherwise struggle to say exactly where they need help. what3words has helped find many people in need of emergency assistance quickly and easily **www.what3words.com**.

First aid

As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements should be in place for training, assessment and real-life activity commensurate with the risk level and environment profile. This could range from first aid at work to trauma care technician or paramedic dependent on the need.

JESIP - Joint Emergency Services Interoperability Principles

https://www.jesip.org.uk/home

This provides guidance on procedures and communications when dealing with emergency situations.

Slow or poor communication between commanders from different services leads to poor information sharing, lack of communication and no joint understanding of the unfolding emergency. JESIP is about improving joint and well-co-ordinated working between all responder agencies at all levels.

Examples of JESIP Terminology

M	**MAJOR INCIDENT**	Has a major incident or standby been declared? (Yes / No - if no, then complete ETHANE message)	*Include the date and time of any declaration.*
E	**EXACT LOCATION**	What is the exact location or geographical area of the incident?	*Be as precise as possible, using a system that will be understood by all responders.*
T	**TYPE OF INCIDENT**	What kind of incident is it?	*For example, flooding, fire, utility failure or disease outbreak.*
H	**HAZARDS**	What hazards or potential hazards can be identified?	*Consider the likelihood of a hazard and the potential severity of any impact.*
A	**ACCESS**	What are the best routes for access and egress?	*Include information on inaccessible routes and rendezvous points (RVPs). Remember that services need to be able to leave the scene as well as access it.*
N	**NUMBER OF CASUALTIES**	How many casualties are there, and what condition are they in?	*Use an agreed classification system such as 'P1', 'P2', 'P3' and 'dead'.*
E	**EMERGENCY SERVICES**	Which, and how many, emergency responder assets and personnel are required or are already on-scene?	*Consider whether the assets of wider emergency responders, such as local authorities or the voluntary sector, may be required.*

6160-08 City & Guilds Award in working as a member of a rescue and recovery team in confined spaces

Ofqual no:	603/7279/5
Level:	Level 3
GLH:	24
Relationship to NOS:	EUSCS08
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for working as a rescue and recovery team member in confined spaces. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations, or where the operative is working in or near water, or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities, gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for anyone who works as part of a rescue and recovery team in confined spaces. It includes preparing to carry out emergency activities, entering and exiting confined spaces safely, using emergency equipment, casualty recovery and handling devices in accordance with manufacturers' specifications, rescuing and recovering casualties, following procedures and working safely.
Assessment type	Practical observation, short answer question paper

Learning outcome

1.   oversee safety checks of the entry and rescue teams prior to commencing work activities.

Assessment criteria

The learner can:

1.1   review the current site-specific risk assessment for the entry team
1.2   check emergency and rescue arrangements are suitable and sufficient
1.3   review and revise live point of work risk assessments
1.4   set up and test **communication** protocols with the rescue team controller and confined spaces work team
1.5   check that appropriate **personal protective equipment (PPE)** is in use for the entrants and rescue team
1.6   confirm the compatibility of all **safety, escape** and **emergency equipment**
1.7   oversee the entry of the confined spaces work team

Range

AC1.4 Communication:
Intrinsically safe mobile phones, intrinsically safe radios, standard radios, data communication systems, verbal, signalling, whistles, airhorns, tannoy

AC1.5 Personal protective equipment:
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness, respiratory protective equipment (RPE), gas tight suits, fire retardant clothing, surgical disposable gloves, face shields

AC1.6 Safety, escape and **emergency equipment** including:
Portable gas monitors, intrinsically safe torches, portable electric lamps, ventilation systems, manhole lifting keys, escape and working breathing apparatus (open/closed circuit), personnel winch, fall protection systems, hand tools, stretchers and other immobilisation equipment and first aid equipment (including external defibrillator (AED), oxygen therapy or resuscitator)

Learning outcome

The learner will:
2.   enter and exit confined spaces safely as part of a rescue and recovery team.

Assessment criteria

2.1   monitor and respond to **conditions** regularly
2.2   take **suitable action** to control risks
2.3   use established signalling or communication protocols to initiate **emergency exit procedures** without delay
2.4   respond to different **emergency situations**
2.5   carry out **rescue and recovery activities** in line with procedures
2.6   **resolve problems** connected to entry, exit or rescue and recovery work
2.7   identify **unsafe activity** and implement suitable controls
2.8   carry out a critical incident debrief with team members and signpost support
2.9   complete **documentation** and **reports** of emergency incidents
2.10   close down and make work areas safe and secure and preserve evidence

2.11   conduct **after use checks** on all equipment to confirm they conform to specification

Range

AC2.1 Conditions:
Composition of atmosphere, oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.2 Suitable action:
Communicate with entry controller; review and implement revised procedure; monitor situation

AC2.3 Emergency exit procedures:
Switch to alternative air supply, don emergency escape set if required, proceed to exit point in an orderly manner, communicate with rescue controller and team as required, exit and report to rescue controller

AC2.4 Emergency situations:
Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, physical illness, bacterial infection, electrocution, disorientation, structure instability

AC2.5 Rescue and recovery activities:
Once alarm is raised:
- Confirm situation and mission with rescue team entry controller and it is safe to enter
- Enter and locate the casualty
- Perform a dynamic risk assessment to check for danger
- Where possible, identify injuries (primary and secondary survey)
- Implement suitable safety measures, administer first aid
- Secure/immobilise casualty (where required) and recover to safe location
- Continue to administer first aid/care as required
- Handover to emergency services

AC2.6 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.7 Unsafe activity such as:
Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry point, personnel under the influence of drugs and alcohol, failure to follow instructions

AC2.9 Documentation and **reports:**
Documentation: RAMS, permits to work, gas readings
Reports: date, location, events leading up to incident, time of incident, persons/equipment involved, details of incident, key messages received/given, time of rescue team entry/exit from confined space, action taken by rescue team, condition of rescue workers, performance of rescue equipment, known hazardous substances casualty may be exposed to, length of exposure to hazardous substances, if oxygen has been administered, any injuries identified by rescue team, any first aid treatment given, arrival time of emergency services or other specialists

AC2.11 After use checks:
Damage, cylinder pressures, cleanliness, contamination
(Decontamination procedures – drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment)

Learning outcome

The learner will:

3.   use equipment and tools safely.

Assessment criteria

The learner can:

3.1   check all **equipment** and **tools** are **suitable for the task** before using them
3.2   use equipment and tools in accordance with manufacturers' specifications
3.3   resolve problems with equipment and tools and report defects
3.4   **check** safety, escape and emergency **equipment** prior to starting task
3.5   use specified methods to introduce equipment and tools safely into confined spaces
3.6   monitor safety equipment throughout the operation
3.7   ensure equipment and tools are recovered from site when work is finished
3.8   carry out **after use checks** and store tools, equipment, safety, escape and emergency equipment in line with manufacturers' instructions

Range

AC3.1 Equipment and tools:
Portable gas monitor, breathing apparatus (open/closed circuit), torches, portable intrinsically safe lamp, communication equipment, personnel winch, fall protection system/device, harnesses, ropes, ventilation systems, stretchers, suitable hand-tools, first aid equipment, trolleys

AC3.1 Suitable for the task:
Gas monitoring equipment should be suitable for gas hazards, airline breathing apparatus to have back-up option (emergency bail-out so airline can be disconnected or secondary, back-up escape set), sufficient duration of air supply to enable rescue, intrinsically safe equipment where required

AC3.4 Equipment checks:
Check safety, escape and emergency equipment is clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, function tests, cylinder contents, duration, battery level), conforms to manufacturers' instructions, inspection/maintenance records

AC3.8 After use checks:
Damage, cylinder pressures, cleanliness, contamination (decontamination procedures – drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment)

Learning outcome

The learner will:

    4.   follow procedures and work safely as a member of a rescue and recovery team.

Assessment criteria

The learner can:

    4.1   resolve any problems connected to the work with the designated/relevant personnel
    4.2   check and use suitable **communication methods** during a rescue
    4.3   follow pre-determined **rescue** plan and **procedures**
    4.4   monitor and respond to **conditions** within the space regularly
    4.5   act immediately to remedy any unsafe activity, equipment, environmental conditions ensuring the safety of rescuers at all times
    4.6   demonstrate **vigilance** to controlling risks and hazards
    4.7   use PPE specified for the rescue
    4.8   conduct **decontamination procedures** on self and equipment

Range

AC4.2 Communication methods including:
Written, verbal, signalling, telephone, intrinsically safe radio, standard radio, mobile phone, data communication, whistles, airhorns, tannoy

AC4.3 Rescue procedures:
Rescue procedures should be suitable and sufficient and should take account of the nature of the confined space and its intrinsic hazards, the task being carried out and the introduced hazards associated with this must be confirmed with all persons involved (briefing); emergency services; standby rescue team; appropriate rescue equipment; effective communication established with designated personnel; liaise with rescue team controller (high risk confined spaces) including risk assessments, job sheets, safe systems of work, dynamic risk assessment.

AC4.4 Conditions:
Atmospheric, environmental, structural

AC4.6 Vigilance:
Maintaining observation, reporting incidents, maintaining safety of self and others, communicating effectively and efficiently, remaining calm and controlled throughout, ensure safety equipment is not misused, follow employer instructions on health and safety matters

AC4.8 Decontamination procedures:
Drench showers, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment

Learning outcome

The learner will:

    5.   understand the principles of working as part of a rescue and recovery team.

Assessment criteria

The learner can:

5.1   describe the process of risk assessment for planning a rescue from a confined space

5.2   describe the **types of emergency** situations that can arise during confined space working

5.3   explain **common causes of emergency** situations during confined space working

5.4   identify **workplace exposure limits** and **properties** in relation to atmospheric conditions

5.5   describe **job roles and responsibilities** when working as part of a rescue and recovery team

5.6   explain procedures for dealing with emergencies, incidents and near misses

5.7   explain the importance of following manufacturers' instructions in the use of safety, escape and emergency equipment

5.8   describe limitations and defects of safety, escape, emergency and monitoring equipment

5.9   Identify the **steps** required when undertaking an initial casualty survey

5.10   describe different techniques to assist and move casualties

5.11   explain the importance of being vigilant to changing risks and hazards

5.12   explain the importance of decontamination procedures

Range

AC5.2 Types of emergency:
Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, physical illness, bacterial infection, electrocution, disorientation, structural instability, heat

AC5.3 Common causes of emergencies:
Poor housekeeping, hot works, exhaust fumes, non-intrinsically safe equipment, welding, painting, use of resins, failure of isolations, heavy rainfall, ingress of fluids, flooding, inundation, medical event, eg underlying medical conditions, injuries caused by slips, trips and falls, tool and person interface, failure of ventilation systems, failure of equipment, loss of communications, lighting system failure, access system failure, cable strike, release of gases from strata, collapse of excavation

AC5.4 Workplace exposure limits and properties:
WEL's:
Short term exposure limit (STEL), Long term exposure limit (LTEL), Time weighted average (TWA)

Gases:
Hydrogen Sulphide (H_2S), Carbon Dioxide (CO_2), Chlorine (CL_2), Ammonia (NH_3), Sulphur Dioxide (SO_2), Nitrogen Oxide (NO), Nitrogen Dioxide (NO_2)

Properties:
Relative density, toxicity, flammability, asphyxiant

AC5.5 Job roles and responsibilities:
Rescue team leader/entry controller/supervisor of work, rescue team members, first aider or rescue medic, emergency service liaison

AC5.9 Casualty survey steps:
Danger, response, airway, breathing, circulation (DRABC)

Learning outcome

The learner will:

6.   understand standard protocols for working in rescue and recovery teams.

Assessment criteria

The learner can:

6.1   describe the importance of following **procedures and methods** for rescue team working
6.2   explain ways of **reducing risk** to an acceptable level for rescue and recovery work
6.3   describe **limitations of equipment** which may prohibit or limit their use
6.4   identify solutions to rescue related problems
6.5   explain procedures for dealing with emergencies that could occur during rescue operations
6.6   describe **reporting systems** for rescue and emergency teams

---

Range

AC6.1 Procedures and **methods:**
Method statements, emergency plan, safe work procedures, permits to work, company policies and procedures, roles and responsibilities, isolation statements, standard operating procedures

AC6.2 Reduce risk:
Risk assessments, job sheets, safe systems of work, live point of work risk assessment, trained and competent staff, suitable equipment, pre-entry briefings, isolations

AC6.3 Limitations of equipment:
Limitations of breathing apparatus in a flammable atmosphere, duration limitations of certain types of RPE, hazards with use of non-intrinsically safe equipment, restrictions of access within the confined space, effects of certain PPE in a hot environment, range of gas monitoring equipment, range of communications

AC6.6 Reporting systems:
Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry and exit logs, entry control board, air consumption tables, handover reports, patient assessment sheets, breathing apparatus records, incident command, incident plan and organisational structure, decision log, reporting under RIDDOR

6160-08   **City & Guilds Award in working as a member of a rescue and recovery team in confined spaces**

Supporting Information

Guidance

AC4.6 Vigilance to controlling risks and hazards:
The assessor must observe the candidate's behaviour throughout the practical exercise to identify an underlying awareness of possible risk and hazards and the appropriate responses to conditions and situations encountered during the assessment. Typically, the assessor will observe the candidate:

- undertaking dynamic risk assessment throughout the exercise to identify risks and hazards
- responding to risks and hazards calmly whilst implementing appropriate control measures
- dealing promptly with emergencies in a calm and collected manner
- conducting themselves in a safe manner throughout.

AC5.9 Casualty survey steps:
With reference to DRABC – Danger, Response, Airway, Breathing, Circulation
https://www.sja.org.uk/get-advice/first-aid-advice/how-to/how-to-do-the-primary-survey/

First aid
As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile. This could range from first aid at work to trauma care technician or paramedic dependent on the need.

6160-09   City & Guilds Award in entrant and entry controller for confined spaces (medium risk)

Ofqual no:	610/0731/6
Unit:	209
Level:	Level 2
GLH:	16
Relationship to NOS:	EUSCS04 and EUSCS02
Endorsement by a sector or regulatory body:	This unit is endorsed by Energy and Utility Skills
Aim:	The aim of this unit is to reflect the national occupational standard for controlling entry and arrangements for working in a medium risk confined space environment. This unit covers both water and non-water industry areas. **Water:** this may include working with potable water, sewage treatment processes, drain and sewer cleaning operations, or where the operative is working in or near water, or where a confined space is subject to surface water flooding. **Non-water:** this may include pharmaceutical, petrochemical, asbestos removal, vehicle manufacture and servicing, aeronautical, construction, communications, power, utilities gas, electrical and mechanical engineering and some elements of work operations in mines, quarries and tunnelling. This unit is for the entry controller/top person who controls entry and arrangements for medium risk confined spaces and works within them. It includes the duties of an entry controller, pre-entry procedures, preparing to work safely, using equipment and tools safely, entry into and exit from the medium risk confined space, maintaining communications, and initiating and following emergency arrangements.
Assessment type	Practical observation, short answer question paper

The learner will:

1.   prepare to work safely at medium risk confined spaces.

Assessment criteria

The learner can:

1.1 interpret the **work plan** to understand activities to be undertaken

1.2 **check** all **equipment** is in good order, calibrated and or certified where necessary prior to starting work

1.3 ensure that **monitoring equipment** is in place and confirm it is working before entering the confined space

1.4 select and examine escape set breathing apparatus prior to starting work

1.5 obtain **authorisation** for entry and relevant health and safety **information**

1.6 carry out a live point of work risk assessment before starting work

1.7 ensure all entrants are **competent**

1.8 ensure work team has been briefed on the nature of the specific confined space

1.9 confirm all team members know and understand their roles

1.10 implement a **safety zone** around the work site and ensure it is maintained

1.11 select a suitable **communication** method for the job

1.12 carry out function **checks** on **communications**, ensure they are set up, tested and working prior to commencing work

Range

AC1.1 Work plan:
This should incorporate the risk assessment, method statement, safe working procedures, permits-to-work, plans, utility drawings, work task, details of equipment required, emergency arrangements

AC1.2 and 1.3 Equipment:
Portable gas monitors (appropriate to gas hazards), intrinsically safe torches and portable electric lamps, electrical equipment low voltage (intrinsically safe if required), personnel winch, fall arrest/protection systems, safety harnesses, escape breathing apparatus (open/close circuit), ventilation systems, hand tools, first aid equipment

AC1.2 and 1.12 Check(s):
Check equipment and tools are clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, function tests, cylinder contents, duration, battery level), inspection/maintenance records, conforms to manufacturers' instructions

AC1.3 Monitoring equipment:
Must include portable gas monitor(s) but depending on sector could also include Radio Frequency (RF) monitors, dosimeters, noise meters, dust monitor, temperature monitoring equipment, fixed atmospheric monitoring equipment, flow meter, water level monitor/indicator

AC1.5 Authorisation and **information:**
Job sheet, generic risk assessment, safe system of work, method statement, gas monitor readings, top person records, permit to enter, permit to work, isolation procedure (eg electrical / mechanical), emergency procedures, hygiene procedures, environmental protection procedures

AC1.7 Competent:
Trained and competent personnel, qualified to the medium risk confined space entry classification, medically fit, authorised on permit if required

AC1.10 Safety Zone:
Barriers, cordons, signing, lighting, guarding

AC1.11 and AC1.12 Communication(s):
Verbal, signalling, intrinsically safe radio, standard radio, intrinsically safe mobile phone, data communications, whistles, airhorns, tannoy

Learning outcome

The learner will:

2. enter and exit the medium risk confined space safely.

Assessment criteria

The learner can:

2.1 check **atmospheric conditions** are safe and record data before the work team enters the confined space
2.2 ensure all entrants are carrying and using suitable **personal protective equipment**
2.3 set up, test and record results of **monitoring equipment** before entering the confined space
2.4 carry out a **safety inspection** on **access equipment** to make sure it is suitable for operational use
2.5 safely enter and exit the space in line with **procedures**
2.6 control entry and exit and record information
2.7 maintain gas monitoring **records** and communications throughout the work activity
2.8 oversee that tools and equipment are introduced safely into the confined space
2.9 initiate site hygiene procedures
2.10 **resolve problems** connected to entry or exit work in confined spaces
2.11 identify **unsafe activity** and implement suitable controls
2.12 oversee the recovery of equipment and tools from site when work is finished
2.13 carry out **after use checks** on tools and equipment and store in line with manufacturers' instructions
2.14 close down and make the work area safe when the work is finished

Range

AC2.1 Atmospheric conditions:
Oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.2
Personal Protective Equipment:
Overalls, gloves/gauntlets, safety helmet, safety footwear, harness, Respiratory Protective Equipment (RPE)
Check suitability, duration, condition, level of protection, pre-use checks, compatibility with other PPE

AC2.3 Monitoring equipment:
Detection of oxygen deficiency, oxygen enrichment, flammable gas, noxious gas, toxic gas, vapours, fumes, dust, temperature

AC2.4 Safety inspection:
Suitability for job, function test, complete, undamaged, in date

AC2.4 Access equipment:
Warning barriers, warning signs, metal or mesh inserts, long/short handle manual lifting keys, long handled lever types on castors, fixed and portable ladders, step irons, personnel winch, harness hydraulic lifts, fall arrest system/device, anchor systems, davit and davit sockets, roped systems

AC2.5 Procedures:
Safety awareness, access equipment, risk assessments, method statements, permits to enter, gas monitoring records, entry controller records, atmospheric testing/monitoring, use of access equipment, contacting base/depot/control centre, company/employer specific entry and exit procedures

AC2.7 Records:
Where applicable: gas readings, entry and exit times, pressure gauge readings, temperature readings, flow rates, communication logs, electro-magnetic frequency readings, incident logs, equipment failures, accidents and injuries, near misses, isolations, point of work risk assessment

AC2.10 Resolve problems:
- Identify the problem
- Assess the situation
- Where possible, implement suitable control measures
- Report the problem

AC2.11 Unsafe activity such as:
Failure to clip into fall arrest gear, introduction of non-intrinsically safe equipment, removal of safety barriers, smoking near proximity of confined space, exhaust fumes in close proximity of entry/exit point, personnel under the influence of drugs and alcohol, failure to follow instructions

AC2.13 After use checks:
Damage, cylinder pressures, cleanliness, contamination (decontamination procedures – drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, suitable quarantine areas for contaminated equipment)

Learning outcome

The learner will:

3. work safely and monitor the work team to ensure procedures are followed.

Assessment criteria

The learner can:

3.1 **control access** of people, plant, equipment and vehicles to the work site
3.2 use **equipment and tools** safely in accordance with manufacturers' specifications
3.3 use **PPE** specified for the job
3.4 follow company or site owners **safe working procedures**

3.5 communicate effectively

3.6 monitor and respond to atmospheric conditions within the confined space regularly

3.7 resolve problems relating to team or work activities with designated personnel

3.8 demonstrate **vigilance** in controlling risks and hazards

3.9 act immediately to remedy any unsafe activity, equipment, or environmental conditions

3.10 continuously **monitor** the work team to ensure safety compliance

3.11 complete **reports and documentation** before filing them in the designated place or passing to the designated personnel

Range

AC3.1 Control access to work site:
Maintain a safety zone, lighting, signing and guarding, restrict access to unauthorised persons

AC3.2 Equipment and tools:
Portable gas monitors, escape breathing apparatus (open/closed circuit), torches, portable intrinsically safe lamp, intrinsically safe radios, personnel winch, fall arrest system/device, harnesses, ropes, suitable hand-tools

AC3.3 PPE:
Overalls, gloves/gauntlets, safety helmet, safety footwear, eye protection, harness, RPE

AC3.4 Safe working procedures:
Risk assessments, live point of work risk assessment, method statements, job sheets, safe systems of work, on site/off site pre-entry briefing, attend relevant health and safety training

AC3.8 Vigilance:
Maintaining observation, reporting incidents, maintaining safety of own and others, communicating effectively and efficiently, remaining calm and controlled throughout ensure safety equipment is not misused, follow employer instructions on health and safety matters

AC3.10 Monitor:
Where applicable: CCTV, data communications, radio communications, verbal communications, link/relay persons, drones, live video, gas readings, atmospheric conditions

AC3.11 Reports and documentation:
Permit to enter, risk assessment, method statement, atmospheric readings, entry and exit times

Learning outcome

The learner will:

4.   deal with emergency situations.

Assessment criteria

The learner can:

4.1 confirm **emergency arrangements** are suitable for the medium risk confined space

4.2 confirm suitable emergency systems are available

4.3 extend exclusion zones where required

4.4 ensure rescue equipment is in place

4.5 commence **emergency procedures** immediately if a dangerous situation arises

4.6 communicate effectively

4.7 exit the confined space in line with procedures

4.8 control exit procedures and use of emergency equipment

4.9 carry out post use checks on safety, escape and emergency equipment before storing

4.10 **record and report** the emergency incident and its circumstances to designated personnel

4.11 secure the work site for post-incident investigations

Range

AC4.1 Emergency arrangements as appropriate**:**
Competent standby rescue team is available, liaison with rescue team controller, appropriate rescue equipment available, effective communication with designated personnel, first aid, medical competence, arrangements communicated to all stakeholders, notification procedure for emergency services, location plans, rendezvous points, location and contact details of nearest hospital

AC4.5 Emergency procedures
Respond to gas alarms or other incidents, use of escape breathing apparatus, exit confined space, internal and external communication, raise the alarm, aid evacuation of personnel, contacting relevant emergency services/rescue teams, establish holding area for casualties

AC4.10 Record and report:
Date, time, location, events leading up to emergency, those involved/affected, key instructions/messages received/given, action taken, arrival time for emergency services other specialists, collation and safe return of documents, RIDDOR

Learning outcome

The learner will:

5. understand the principles of working in medium risk confined spaces.

Assessment criteria

The learner can:

5.1 identify the main principles of **health and safety** and **environmental legislation**

5.2 describe **hazards, substances, and situations** associated with **different types of confined spaces**

5.3 explain the importance of live point of work risk assessments

5.4 describe the process of risk assessment for working safely in confined spaces

5.5 identify control measures that can be implemented to reduce risk

5.6 identify the **types of places** that could become confined due to the presence of a hazard

5.7 identify **workplace exposure limits and properties** in relation to atmospheric conditions

5.8 identify different **types of emergency** situations both physical and atmospheric and their **common causes** in a medium risk confined space

5.9 describe different **roles** involved in

      a) working as part of a confined spaces **team** and

      b) dealing with **emergencies**

5.10 identify requirements for first aid and types of **injuries** that may occur to personnel and the general public at medium risk confined spaces

5.11 explain the **importance** of **decontamination procedures**

Range

AC5.1 Health and safety and environmental legislation:
- Health and Safety at Work Act
- Confined Spaces Regulations
- Management of Health and Safety at Work Regulations
- Construction, Design and Management Regulations (CDM)
- Control of Substances Hazardous to Health Regulations (COSHH)
- Personal Protective Equipment Regulations (PPE)
- Respiratory Protective Equipment Regulations
- Provision and Use of Work Equipment Regulations (PUWER)
- Lifting Operations Lifting Equipment Regulations (LOLER)
- Construction (Health, Safety and Welfare) Regulations
- First Aid at Work Regulations
- Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)
- Work at Height Regulations
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- Control of Vibration at Work Regulations
- Control of Noise at Work Regulations
- Control of Asbestos Regulations
- Workplace Exposure Limits (EH40)
- Environmental Protection Act
- Wildlife and Countryside Act

AC5.2 Hazards, substances, and situations:
Specified risks that may be identified prior to entry to a wholly or partially enclosed space

AC5.2 Different types of confined spaces including**:**
Chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk

AC5.6 Types of places including**:**
Chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk

AC5.7 Workplace exposure limits and properties:
> **WEL's:**
> Short term exposure limit (STEL), Long term exposure limit (LTEL), Time weighted average (TWA)

> **Gases:**
> Hydrogen Sulphide (H_2S), Carbon Dioxide (CO_2), Chlorine (CL_2), Ammonia (NH_3), Sulphur Dioxide (SO_2), Nitrogen Oxide (NO), Nitrogen Dioxide (NO_2)

> **Properties:**
> Relative density, toxicity, flammability, asphyxiant

AC5.8 Types of emergency:

Fire, explosion, excessive temperature, toxic gases, fumes, vapours, oxygen deficiency, oxygen enrichment, free-flowing solids, flooding, infestation, medical event, trauma, physical injury, feeling unwell, bacterial infection, electrocution, disorientation, structure instability

AC5.8 Common causes:
Poor housekeeping, hot works, exhaust fumes, non-intrinsically safe equipment, welding, painting, use of resins, failure of isolations, heavy rainfall, ingress of fluids, flooding, inundation, medical event e.g., underlying medical conditions, injuries caused by slips, trips and falls, tool and person interface, failure of ventilation systems, failure of equipment, loss of communications, lighting system failure, access system failure, cable strike, release of gases from strata, collapse of excavation

AC5.9 Roles (team):
Entrant, entry controller (top man/person), link person (bottom person) supervisor, manager, first aider

AC5.9 Roles (emergencies):
Person in charge, supervisor of work, rescue team members, first aider or rescue medic, emergency service liaison

AC5.10 Injuries:
Broken bones, cuts, grazes, sprains, strains, unconsciousness, crushing, burns, scalding, electrocution, hypothermia, hypoxia, bites

AC5.11 Importance:
Minimises the risk of further contamination, minimises any ill health effects, control of hazardous materials, ensure environmental compliance

AC5.11 Decontamination procedures could include**:**
Drench showers, correct disposal of disposable equipment, removal and correctly bagging contaminated clothing, quarantine and cleaning/appropriate disposal of contaminated tools and equipment

---

Learning outcome

The learner will:

6. understand standard protocols for work in medium risk confined spaces.

Assessment criteria

The learner can:

6.1 identify the different categories of the Water UK OGN **classification scheme**

6.2 identify **risk weighting factors** in relation to confined spaces

6.3 describe **communication methods** and **lines of communication** for controlling work in medium risk confined spaces

6.4 describe **procedures** and **methods** used for working in confined spaces

6.5 identify ways of resolving problems when working in medium risk confined spaces

6.6 describe **reporting systems** for work activities and emergency situations

6.7 explain procedures for dealing with emergencies

Range

AC6.1 Classification scheme:

Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

AC6.2 Risk weighting factors including**:**

Types of hazard, complexity of confined space, access and egress, task, number of entrants, equipment and substances in use, environmental considerations

AC6.3 Communication methods:

Written, verbal, signalling, intrinsically safe radios, standard radios, mobile phone, data communication, whistles, air horns, klaxon, tannoy

AC6.3 Lines of communication:

Entry controller may need to communicate with entrants, standby safety team, onsite rescue personnel, supervisor, emergency services, health and safety departments, control rooms, authorised persons, on site security

AC6.4 Procedures and **methods:**

Method statements, emergency plan, safe work procedures, permits to work, company policies and procedures, roles and responsibilities, isolation statements, point of work risk assessment

AC6.6 Reporting systems:

Accident reports, incident report, communication logs, checklists, gas monitoring records, permits, entry logs, reporting under RIDDOR, handover reports to emergency/rescue teams

Learning outcome

The learner will:

7. understand entry controller duties and responsibilities.

Assessment criteria

The learner can:

7.1 describe information in a **pre-entry briefing**
7.2 explain **key requirements** of a safe entry point
7.3 describe the advantages and disadvantages of different **ventilation systems**
7.4 describe the importance of being **vigilant** to changing risks and hazards and resolving problems without delay
7.5 describe confined space **incidents** and their **effect** on personnel
7.6 explain how to close down and make entry points **safe and secure**
7.7 identify the types of **documentation** used for post activity reporting

Range

AC7.1 Pre-entry briefing:
Types of tasks, communications, emergency arrangements.
L101, Approved Code of Practice (ACoP) "Safe Working in Confined Spaces"
Water UK OGN (Occasional Guidance Note) – current version of the Classification and Management of Confined Space Entries (NC1, NC2, NC3, NC4, NCX)

Low, medium and high risk category spaces

AC7.2 Key requirements:
Atmospheric monitoring, access and egress, communications, signing, lighting and guarding, recording systems

AC7.3 Ventilation systems:
Forced air positive pressure displacement fans, extraction fans, vacuum systems, dilution ventilation using inert gas, tandem air system

AC7.4 Vigilant:
Observing activities being carried out, reporting incidents, maintaining safety of self and others, communicating effectively and efficiently, remaining calm and controlled, ensure safety equipment is not misused, follow company procedures, follow employer instructions on health and safety matters

AC7.5 Incidents:
Structural collapse, falls from height, ingress of water, exposure to hazardous atmospheres, exposure to excessive heat, fire and explosions, cutting into strata, service strikes, use of unsuitable equipment, equipment failure

AC7.5 Effects:
Broken bones, cuts, grazes, sprains, strains, unconsciousness, crushing, burns, scalding, electrocution, hypothermia, heat stress, drowning, hypoxia, bites, mental anguish (PTSD)

AC7.6 Safe and secure:
Lock access points, activate intruder alarms, inform control centre, remove debris, wash down, remove isolations, cordons, scene guard, security

AC7.7 Documentation:
Entry and exit logs, company specific logs, permits to work, point of work risk assessment, method statements, atmospheric readings, temperature readings, site logs, equipment logs, flow rates, communication logs, incident logs, RIDDOR

Learning outcome

The learner will:

8. understand equipment checks and inspection required.

Assessment criteria

The learner can:

8.1 identify **defects** and **actions** to take when dealing with faulty equipment
8.2 explain procedures needed to prepare, **check** and inspect access **equipment**
8.3 state the importance of following manufacturers' instructions relating to the use of **safety, escape** and **emergency equipment**
8.4 explain **factors** that could impact on equipment used in medium risk confined spaces
8.5 identify ways in which different **types of monitoring equipment** can **malfunction**

AC8.1 Defects:
Out of test date, excessive wear, modifications to equipment, incorrect standards, damage

AC8.1 Actions:
Quarantine, remove from service, complete report, inform designated persons, label item with description of fault

AC8.2 Check equipment:
Check equipment is clean and undamaged (quarantine faulty/contaminated equipment), calibration and test dates, pre-use checks (including self-tests, cylinder contents, duration, battery level), conforms to manufacturers' instructions, inspection/maintenance records

AC8.3 Safety, escape and **emergency equipment:**
Gas monitor, fall protection devices and tripods, safety helmet and harness, assisted rescue equipment, escape breathing apparatus, PPE

AC8.4 Factors:
Equipment factors such as limited time duration, restricted access due to equipment size, entanglement, incorrect calibration, external influences on gas monitors, eg, sealants, silicone, flooding
Personnel factors such as weight limits on access equipment, impact of facial hair on Respiratory Protective Equipment (RPE)

AC8.5 Types of monitoring equipment and how they can malfunction:
- Gas monitors: incorrect sensors fitted, poisoned sensors, battery life
- Water level indicators: contaminated probes, leaking floats, damaged fins
- Dust monitor: blocked filters
- Noise monitor: battery life
- Flow rate monitor: foreign body obstruction

6160-09   City & Guilds Award in entrant and entry controller for confined spaces (medium risk)

Supporting Information

Guidance

AC5.1 Health and safety and environmental legislation:

All delivery staff must keep themselves up to date. Teaching, assessment and quality assurance practices must be to current, relevant health and safety and environmental legislation.

List of reportable injuries under RIDDOR **https://www.hse.gov.uk/riddor/reportable-incidents.htm**

AC5.10 First aid:

As per the first aid at work regulations and confined space approved code of practice, suitable and sufficient first aid arrangements must be in place for training, assessment and real-life activity commensurate with the risk level and environment profile.

AC2.10/3.7/6.5/7.4 Problems:

The candidate must be given the opportunity to show they can resolve problems. This must be evidenced through practical simulation.

AC2.1/2.3/3.6 Monitor atmospheric conditions:

The candidate must regularly show the assessor, without prompting, that they are monitoring atmospheric conditions in the confined space and interpreting and acting upon information obtained from relevant monitor(s). They must also check for other conditions such as fire, power failure, collapse and obstructions to access and these can be verbally reported to the appropriate person.

AC3.8 Demonstrate vigilance to controlling risks and hazards:

The assessor must observe the candidate's behaviour throughout the practical exercise to identify an underlying awareness of possible risks and hazards and the appropriate responses to conditions and situations encountered during the assessment. Typically, the assessor will observe the candidate:

- undertaking dynamic risk assessments throughout the exercise to identify risks and hazards
- responding to risks and hazards calmly whilst implementing appropriate control measures
- dealing promptly with emergencies in a calm and controlled manner
- conducting themselves in a safe manner throughout.

AC3.11 Documentation and reports:

The candidate must be given the opportunity to make reports and complete required documents in line with organisational requirements.

Appendix 1   Mapping to NOS

City & Guilds Level 2 Award in Working in Low Risk Confined Spaces (6160-01)

City & Guilds 6160-01		NOS: EUSCS01	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.6	2, 3, 5, 6, 7, 8, 9, 10, 11,12, 13, 16, 17, 20, 21	
LO2	2.1 - 2.6	10, 12, 13, 15, 16, 17, 19, 20	
LO3	3.1 - 3.6	7, 8, 14, 20, 21, 25	
LO4	4.1 - 4.12	1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 24, 26	
LO5	5.1 - 5.4	21, 22, 23, 24	
LO6	6.1 - 6.11		1, 2, 3, 4, 5, 16, 17, 18, 21
LO7	7.1 - 7.12		4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23

City & Guilds Level 2 Award in Working in Medium Risk Confined Spaces (6160-02)

City & Guilds 6160-02		NOS: EUSCS02	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.7	1, 2, 3, 4, 5, 9, 10, 12, 19, 20, 21	
LO2	2.1 - 2.6	10, 13, 14, 16, 17, 19, 20, 22	
LO3	3.1 - 3.6	5, 6, 7, 8, 15, 30, 31, 32, 33	
LO4	4.1 - 4.12	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 24, 26	
LO5	5.1 - 5.5	22, 23, 24, 25, 26, 27, 28, 29	
LO6	6.1 - 6.12		1, 2, 3, 4, 5, 6, 7, 8, 9, 14, 16, 17, 25, 26
LO7	7.1 - 7.10		2, 5, 6, 8, 10, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23. 24, 27, 28, 29, 30, 31

City & Guilds Level 2 Award in Working in High Risk Confined Spaces (6160-03)

City & Guilds 6160-03		NOS: EUSCS03	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.8	1, 2, 3, 4, 5, 6, 7, 8, 12	
LO2	2.1 - 2.11	2, 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27	
LO3	3.1 - 3.7	5, 6, 7, 8, 18,19, 20, 21, 22, 35, 37, 38	
LO4	4.1 - 4.12	2, 3, 5, 6, 8, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	
LO5	5.1 - 5.7	5, 6, 7, 8, 9, 25, 28, 29,30, 31, 32, 33, 34, 35, 38	
LO6	6.1 - 6.16		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, 26, 27, 28
LO7	7.1 - 7.8		4, 5, 6, 7, 9, 16, 17, 18, 19, 21, 22, 25, 31, 32, 33

City & Guilds Level 3 Award in Control Entry and Arrangements for Confined Spaces (High Risk) (6160-04)

City & Guilds 6160-04		NOS: EUSCS04	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.9	1, 2, 3, 4, 5, 6, 10, 11	
LO2	2.1 - 2.11	6, 7, 9, 10, 12, 13, 14, 15, 16, 17, 19	
LO3	3.1 - 3.5	6, 10, 11, 13, 14	
LO4	4.1 - 4.8	4, 5, 8, 13, 18, 19, 20, 21	
LO5	5.1 - 5.5		1, 2, 3, 4, 5, 6, 7, 8, 9, 17
LO6	6.1 - 6.4		1, 2, 4, 5, 6, 8, 9, 13, 14, 18, 22, 26
LO7	7.1 - 7.11		7, 8, 9, 16, 20, 21, 22, 23, 24, 25, 26
LO8	8.1 - 8.7		10, 11, 12, 15, 19, 20, 23, 27

City & Guilds Level 3 Award in Supervising Teams Undertaking Work in Confined Spaces (6160-05)

City & Guilds 6160-05		NOS: EUSCS05	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.8	1, 2, 3, 4, 5, 6, 7, 8, 9, 31, 32, 33	
LO2	2.1 - 2.6	13, 14, 15, 16, 17, 18, 19, 20, 33	
LO3	3.1 - 3.5	21, 22, 24, 27, 34	
LO4	4.1 - 4.9	10, 11, 12, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34	
LO5	5.1 - 5.5		6, 7, 18, 19, 28
LO6	6.1 - 6.3		6, 7, 9, 17, 30, 34
LO7	7.1 - 7.7		3, 4, 5, 6, 10, 11, 14, 15, 16, 17, 18, 19, 27, 30, 31, 32, 33, 34
LO8	8.1 - 8.3		2, 9, 12, 13, 15, 16, 19, 22, 25, 32

City & Guilds Level 4 Award in Plan Manage and Review Legislative and Safety Compliance for Work in Confined Spaces (6160-06)

City & Guilds 6160-06		NOS: EUSCS06	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.7	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 29, 30	
LO2	2.1 - 2.8	6, 7, 8, 10, 13, 19, 20, 21, 23, 25, 26, 31, 32	
LO3	3.1 - 3.4	2, 3, 4, 5, 6, 8, 14, 15, 16, 17, 18, 21, 23, 24, 25, 26, 31, 32, 33	
LO4	4.1 - 4.5	3, 6, 10, 14, 17, 18, 22, 27, 31, 32, 33, 34	
LO5	5.1 - 5.11		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
LO6	6.1 - 6.4		4, 5, 7, 9, 19, 24, 31, 33, 34
LO7	7.1 - 7.7		6, 12, 16, 17, 19, 20, 21, 28
LO8	8.1 - 8.5		14, 15, 22, 27, 28, 29, 30

City & Guilds level 3 Award in Direct Emergency Rescue and Recovery of Casualties from Confined Spaces (6160-07)

City & Guilds 6160-07		NOS: EUSCS07	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.10	3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16	
LO2	2.1 - 2.15	1, 2, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32	
LO3	3.1 - 3.11	18, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32	
LO4	4.1 - 4.10		2, 3, 10, 12, 15, 20, 21, 22, 23, 25, 26, 27, 28, 29, 33, 35
LO5	5.1 - 5.8		1, 4, 5, 6, 7, 8, 9. 11, 13, 14, 16, 17, 18, 19, 24, 30, 31, 32, 34

City & Guilds Level 3 Award in Working as a Member of a Rescue and Recovery Team in Confined Spaces (6160-08)

City & Guilds 6160-08		NOS: EUSCS08	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding
LO1	1.1 - 1.7	1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 19	
LO2	2.1 - 2.11	2, 11, 12, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33	
LO3	3.1 - 3.8	4, 5, 6, 7, 8, 9, 10, 11, 13, 16, 17, 19, 21, 22, 31, 32, 33	
LO4	4.1 - 4.8	3, 4, 11, 15, 17, 18, 20, 21, 22, 23, 28	
LO5	5.1 - 5.12		7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 23, 24, 25, 26
LO6	6.1 - 6.6		2, 3, 4, 7, 8, 9, 10, 11, 12, 20, 22, 27, 28, 29, 30

City & Guilds Level 2 Award in Entrant and Entry Controller for Confined Spaces (Medium Risk) (6160-09)

City & Guilds 6160-09		NOS: EUSCS02		NOS: EUSCS04	
Learning outcomes	Assessment criteria	Performance criteria	Knowledge and understanding	Performance criteria	Knowledge and understanding
LO1	AC1.1 - 1.12	1, 2, 3, 4, 5, 9, 10, 12, 19, 21		1, 2, 3, 4, 5, 6, 11	
LO2	AC2.1 - 2.14	10, 13, 14, 16, 17, 19, 20, 22		6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17	
LO3	AC3.1 - 3.11	5, 6, 8, 12, 16, 17, 18, 19, 20, 21, 24, 26		6, 10, 11, 13, 14	
LO4	AC4.1 - 4.11	22, 23, 24, 25, 26, 27, 28, 29		4, 5, 8, 13, 18, 19, 20, 21	
LO5	AC5.1 - 5.11		1, 2, 3, 5, 6, 7, 8, 9, 14, 16, 17, 25, 26		1, 2, 3, 4, 5, 6, 7, 8, 17, 23
LO6	AC6.1 - 6.7		5, 6, 11, 12, 15, 16, 20, 23, 24, 27, 28, 29, 30, 31		4, 5, 6, 8, 9, 13, 14, 18, 22, 23, 26
LO7	AC7.1 - 7.7		8, 9, 14, 15, 21, 22, 23, 29, 31		7, 8, 9, 16, 20, 21, 23, 24, 25, 26, 27
LO8	AC8.1 - 8.5		11, 12, 18, 19, 25, 26, 30		10, 11, 12, 15, 19, 20, 23

Appendix 2   Guidance on risk assessments

Generic risk assessment
Generic risk assessments cover common hazards for a task or activity. A generic risk assessment will often be used for similar activities or equipment across different sites, departments or companies. It can act as a risk assessment template, covering the types of hazards and risks that are usually present for the activity.

Site-specific risk assessment
A site-specific risk assessment is a risk assessment that has been completed for a specific item of work that takes account of the site-location, environment, and people doing the work.

Point of Work Risk Assessment
A Point of Work Risk Assessment (POWRA) is a workplace risk assessment carried out by supervisors prior to start of activity. POWRA should be completed at the point of work, before you start

Dynamic risk assessment
A dynamic risk assessment is a process of assessing risk in an on-the-spot situation. This type of risk assessment is often used to cope with unknown risks and handling uncertainty.

The permit-to-work is a documented procedure that authorises certain people to carry out specific work within a specified time frame. It sets out the precautions required to complete the work safely, based on a risk assessment. https://www.hse.gov.uk/coshh/basics/permits.htm

Further information can be found in the **6160 Centre Resource Pack** available on the City & Guilds website **www.cityandguilds.com**

Appendix 3   Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the *Centre Document Library* on *www.cityandguilds.com* or click on the links below:

Quality Assurance Standards: Centre Handbook

This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on

- Centre quality assurance criteria and monitoring activities
- Administration and assessment systems
- Centre-facing support teams at City & Guilds / ILM
- Centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the Centre Contract.

Quality Assurance Standards: Centre Assessment

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements, or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre-assessments.

Access arrangements - When and how applications need to be made to City & Guilds provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The *Centre Document Library* also contains useful information on such things as:

- Conducting examinations
- Registering learners
- Appeals and malpractice

Useful contacts

Please visit the Contact Us section of the City & Guilds website, *Contact us*

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people, organisations and economies develop their skills for growth. We work with education providers, employers and governments in over 100 countries across the world to help people, businesses and economies grow by shaping skills systems and supporting skills development.

The Group is made up of City & Guilds, ILM, Kineo, The Oxford Group, Gen2, and Intertrain. Together we set the standard for professional and technical education and corporate learning and development around the world.

Copyright