BAJR

Guide 28

CSCS Card for the Archaeologist

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David Connolly Update 2023

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This guide looks at the requirements and process of obtaining CSCS cards for archaeologists. It also reviews key questions relating to the health and safety in construction, which are likely to occur in the CSCS test.

Currently, a construction project management can ask for a range of certificates before a person is allowed to enter and work on an active construction site. This guide deals only with the CSCS card, with others including confined spaces, quarry, railways etc.

CSCS is the skills certification scheme used within the UK construction industry to provide proof that individuals working on construction sites have the required level of training and/or qualifications for the work they carry out. The cards that are issued cover varying trades and levels of management in construction.

Most construction companies (and all the larger developers) make CSCS card a MANDATORY requirement to step onto a site.

Even if you gain employment with an archaeological contractor, without a valid CSCS card, you could be turned away at the gates of the construction site – by the construction site manager.

Getting CSCS card is a simple process and the card is available to anyone working in the UK-wide construction industry (Northern Ireland has similar scheme called CSR). If you are from outside the UK, but have gained an employment with British archaeology company, then talk to your employers about getting CSCS card (or at least sitting the test) as soon as you arrive to UK. Note: if you have gained your archaeology degree outside UK, there may be issues with matching you degree course to UK qualifications.

NOTE:
The old Construction Related Occupation (CRO) card is not valid after September 2017; CRO cards issued before 1st October 2015 that expire after 30th September 2017 will remain valid until expiry date. However, many larger infrastructure projects do not recognize this card anymore and the new CSCS cards will be required.

1. Introduction

1.1. Background to the Scheme

While archaeology has a good health and safety record overall, the construction industry has a large proportion of work-related deaths injuries every year. Developer-led archaeology brings the archaeologist into the sphere of the construction industry and its attendant risks.

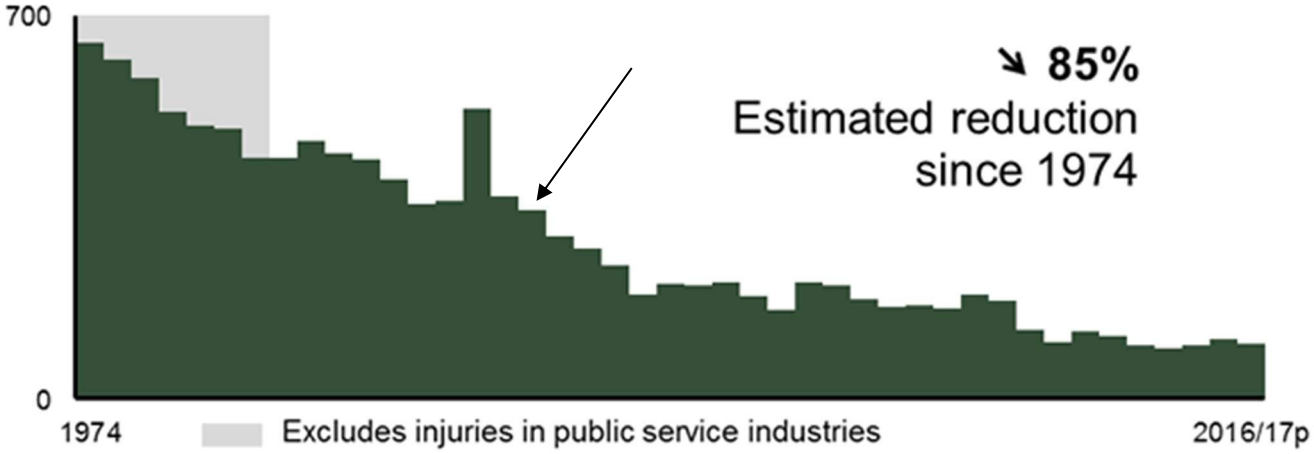


Figure 1: Fall in fatalities in construction industry from 1974 to the present - the arrow shows the year that CSCS cards scheme began.

The **CSCS** (Construction Skills Certification Scheme) Test is a standard measure of health and safety knowledge and competence that applies across the entire range of construction trades– including archaeology.

The **CSCS** scheme started in the 1990s, when there were high levels of accidents in the construction sector and an unacceptable level of fatalities. In terms of health and safety, the industry was one of the worst performing sectors in the UK, and in general UK construction sites were seen as dangerous places to work.

1.2. About the CSCS card

The Construction Skills Health and Safety test and CSCS card are designed to set an industry standard, ensuring that everyone working in construction environment has the same minimum level of health and safety awareness. However, the scheme is now much more than that.

CSCS cards are valid for five years and the Health and Safety Test must be passed every time to gain and renew the card. If you are an archaeological supervisor or manager you may consider a more advanced **Managerial Card**. Currently the **Trainee or Apprentice card**, which is non-renewable, is valid for five years, after which time the card holder should have attained either membership of a professional body / institution or a vocational qualification.

Note, in **Northern Ireland** the scheme is called the **Construction Skills Register** (CSR); call CSR for information on 028 9087 7150.

A common misconception is that the Health and Safety Test is like a first-aid certificate or other pass card and that some form of training course is required before taking the test. This is incorrect, as you can study at home with help of a question book, a CD-Rom, a networkable DVD or a question book for the Professionally Qualified Persons test.

The **Health and Safety Test** can be booked online through (https://www.citb.co.uk/cards-testing/booking-test), by calling 0344 994 4488, or by downloading a postal application form. Note to book the test online, you first need to register with **Pearson VUE**, the test provider.
The standard fee for a CSCS card is £36 and the Health, Safety and Environment (HS&E) test costs c.£19.50 (rates for 2018). Payment is by credit or debit card and required details include candidate's home address, date of birth, and **National Insurance number** or **Construction Skills registration number**.

Anyone needing special support for booking the test can contact the **CSCS Helpdesk on 0344 9944 777** and will be guided through the application process.

You need to visit a **CITB approved centre** to sit a test, which can be located here:
https://wsr.pearsonvue.com/citb/seatsearch/

There are different options available for sitting the test–regarding the location of the test and how many tests need to be booked. Internet and mobile testing option allow for the test to be conducted on business premises. The mobile testing unit requires that at least sixteen people are taking the test at one time. . The **Corporate Health and Safety Test Booking line number is 0161 868 9255**. Tests should be available within 3-8 weeks from when you book.

If your **confirmation letter** does not arrive in the period quoted, phone 0870 600 4020 to check your test has been booked, as CSCS do not take responsibility for postal delays.

As the CSCS card is now a, essential and mandatory element of working as a professional UK archaeologist it should be paid for by the employer. However, CSCS cards are not a **legal requirement** (unlike PPE), but most major contractors require workers on their sites to hold them. The law states that anyone undertaking construction work must be competent, and the certification scheme is one of the main ways of demonstrating relevant skills and training. It is an interesting legal debate, given that if the company was to pay for your card, then it would be entitled (as with PPE) to take it back on the termination of contract (however unlikely this seems). Therefore the only honest answer to this quandary is: be happy if the company helps you get the card and/or pays for it; or get the card on your own, and know it is yours to keep.

A further issue has been highlighted regarding this new upgraded CSCS system– resulting in some individuals experiencing difficulties in convincing CSCS personnel/organization that they are qualified for a card. This is particularly the case with the **AQP (Academically Qualified Person) card**, as the 'archaeology' degree name is not on their list (see also overseas degree mapping). Applications for cards therefore often work best when done in bulk by the employer.

To renew your CSCS card, you need to prove again that you have the appropriate training and qualifications for your job, and you need to retake the **CITB Health, Safety and Environment test**. You can then download and complete the application form, or call the CSCS contact centre to pay £49 over the phone and provide details of your current or previous employer. You cannot apply to renew your card until **six months** before your current card's expiry date.

2. Types of Card

Professional archaeologist will also have to take the Managers and Professionals test**,** with a **fifth**, the **Site Visitor Card**, suitable for those that only occasionally need access to a working site– such as, specialists or senior project managers. Nevertheless, in reality, it is worth applying for one of the other cards, as the **Site Visitor Cards** will be phased out in the 'near future'.

Apprentice: You must be on a recognised apprenticeship scheme with a basic health and safety element. **Card valid for five years** but cannot be renewed. **www.cscs.uk.com/card-type/trainee-card**
Trainee: For students or trainees registered on a recognised training course. For an employers' training scheme to be recognised by CSCS, it must be endorsed by CIfA. Be aware of the upcoming Trailblazer Apprentice Scheme. **Card valid for five years.** Requires the basic (operative level) health and safety test. **www.cscs.uk.com/card-type/apprentice**
Academically Qualified Person (AQP): For archaeologists with an **'archaeology or heritage degree'**. Requires the Manager level health and safety test. **Valid for five years.** **Note**: CSCS is proposing changes to the AQP route in the future **www.cscs.uk.com/card-type/academically-qualified-person**
Professionally Qualified Person (PQP): Will be available *for* CIfA membership at *corporate* level a*nd* will have to be maintained to qualify for renewal. Requires the Manager level health and safety test. Card valid for five years. **www.cscs.uk.com/card-type/professionally-qualified-person**

Types of CSCS cards for Archaeologists and Heritage Professionals

2.1. Apprentice Card

The Apprentice card is valid for those in an approved apprenticeship scheme. Several of the larger archaeological companies are bringing in apprenticeships alongside the wider Trailblazer scheme developed by CIfA and Universities Archaeology UK, although at time of publishing this document these are not yet available. For further details see http://www.archaeologists.net/apprenticeships

To apply for this card, you will require **one** of the following:

- A letter from the Managing Agency of your apprenticeship, confirming that you are registered with them and which qualifications (with full titles and pathways) you are registered for (or for Trailblazer apprenticeships a letter from a professional organisation stating that the successful completion of the apprenticeship is equivalent to the practitioner standard);
- A letter from your apprenticeship training provider confirming that you are registered with them and which qualifications (with full titles and pathways) you are registered for;
- Your Apprenticeship Agreement, provided that it shows the occupation and qualification (including pathways) you are registered for;

AND

- Your CITB registration number from the HSE test pass certificate.

2.2. Trainee card

For the trainee card, you are required to be in an approved training course. CSCS recognises courses approved by CIfA (as the standards setting body for archaeologists) in agreement with FAME (as the relevant trade body). For further details on already approved courses see https://www.archaeologists.net/Gettingstarted. When you apply for your Trainee card, you will need to provide evidence from your training centre which includes:

- Applicants Name;
- Full qualification title and level of the course you are registered to;
- Date of registration (must be in the last two years); and
- Your CITB registration number from the HSE test pass certificate.

If you are applying through a CIfA approved training course, you will need to submit an official letter from CIfA stating that you are entitled to apply, as your course is approved by them, and the following:

- Name of person on training course who is applying for the card;
- The title of the training course;
- The start date of the course and estimated finish date;
- Proof that the person is enrolled on the course, so the form they sign to say they abide by the terms of the training course;
- A statement that the "scheme has been mapped against the National Occupational Standards for Archaeological Practice and is formally recognised by the Chartered Institute for Archaeologists as delivering appropriate archaeological skills and competence to Practitioner level".

2.3. Professionally Qualified Person (PQP) card

This card is available to competence assessed members of CSCS, approved Professional Bodies. In case of archaeology profession, this is represented by the Chartered Institute for Archaeologists (CIfA).

Applicants will need to provide proof that they are members of a professional body in the form of:

- A membership certificate or card
- An up-to-date letter or email from the professional body

All applicants (at PCIfA and above) must now pass the **CITB Managers and Professionals Health, Safety and Environment Test**.

For renewals, applicants must supply a letter or email from the professional body confirming that they are still a member of the organisation.

You can also apply for this card over the phone by calling **0344 99 44 777**; you will need to email evidence of your professional membership **to cscs@citb.co.uk** prior to calling.

This card is valid for five years.

2.4. Academically Qualified Person card

This card is available to people who have completed certain degrees, HNDs, HNCs, CIOB Certificates and NEBOSH diplomas. Currently, the degree course must have the word Archaeology in it and often which courses are deemed permissible depends on who you talk to at CSCS. Hence the occasional problems with this type of card.

To apply for the card, applicants will need to supply

- a copy of their qualification and, where possible, evidence of the units achieved within the qualification.

All applicants must pass the **CITB Managers and Professionals Health**, **Safety and Environment Test**

This card is valid for five years.

[See section 2.5 below for more information on Foreign Degree certification]

If applying for the AQP card, be aware that most universities charge for copies of degree certificates and academic transcripts if you have lost your original. If applying with a non- English language degree, CSCS only recognise translations completed by UK NARIC, which can also be relatively expensive. For more details, see https://www.cscs.uk.com/applying-for- cards/overseas-qualifications/

2.5. Foreign Language Degrees verifications

There are reports that individuals going through the Academically Qualified Person (AQP) route who are using their foreign language degree as evidence of qualification are occasionally experiencing difficulties with gaining the CSCS card. This appears to be a 'fault' within the **NARIC degree verification process**, which is the only service CITB recognize for the verification of foreign degrees.

In some instances NARIC staff are mistakenly requiring archaeologists to also be part of the '**Skills Mapping Service'**, an additional requirement for construction workers (**but NOT archaeologists**) applying for the Skilled Worker / Advanced Craft / Supervisory / Manager cards, which archaeologists cannot at present apply for.

https://www.naric.org.uk/naric/individuals/Occupations/CSCS%20Changes.aspx clearly states Skills Mapping Service is not required for anyone applying for the AQP card.

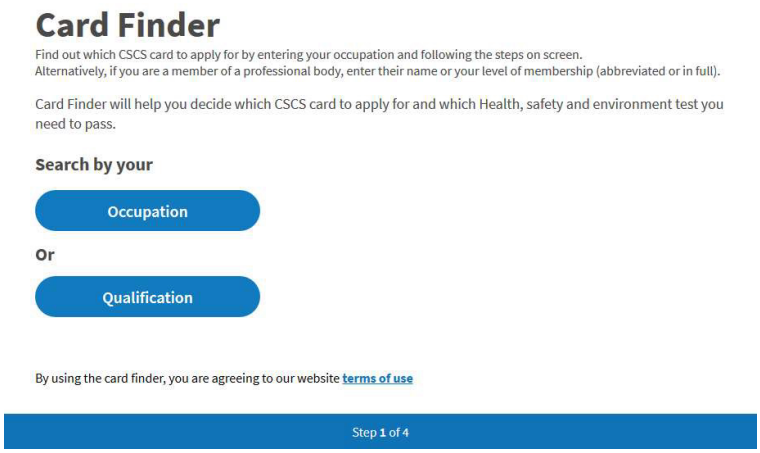
NOTE: From 1st December 2018 onwards, these UK NARIC Statements (except those issued for AQP card purposes) will include mapping of your skills.

When you apply for an AQP card, you should ask NARIC for a '**Statement of Comparability**' if you already have a certified translation of your qualifications and a translation waiver upgrade if you do not have a certified English translation.

Make it clear that you want NARIC to provide a '**Statement of Comparability**' and that you are applying for an AQP card. If you are told that you actually require the '**Statement of Comparability for Construction Skills including Primary Source Verification of qualification**', then this is incorrect and if you are unable to resolve this with NARIC, you should contact CIfA (admin@archaeologists.net) who will help you further.

CSCS are now insisting that applicants will also require Primary Source Verification as part of the Statement of Comparability - essentially UK NARIC will verify that your degree is yours. The Primary Source Verification is a lot more expensive (https://www.naric.org.uk/naric/Individuals/Occupations/construction.aspx) and will add **£221.40** (including VAT) to the cost of getting a CSCS card through this route for those with non-English language degrees, on top of the NARIC Statement of Comparability costs, test costs and card cost. There is also no fast track for this service, so applications for cards will take more than 30 days- if you are going to use this route then please be aware that this may mean that your ability to get on to any site will be delayed until the application has gone through.

Find the card you need here: **https://www.cscs.uk.com/card-finder**



- For an PQP >> by Occupation then search **Chartered Institute For Archaeologists**- You will then have to have your membership number ready and and must have done the **Operatives test**
- For an AQP >> by Qualification then search **Archaeo**- You will then choose your degree, choose your "Project Support" and must h e the **Managers and Professionals test**

CSCS guide link from Diggers Forum (CIfA group):
https://www.archaeologists.net/sites/default/files/CSCS_card_application_guide_v3_with_examples%20%282%29.pdf

and **NARIC advice**
https://www.archaeologists.net/sites/default/files/DF_NARIC_CSCS_update_20171120_BJS_DF_template.pdf

3. The Tests

3.1. Introduction

HS&E test is updated to include new question styles including:

1. Drag and drop text
2. Multiple choice with images
3. Hot Spots

The test content has changed. Digital revision materials (DVDs, downloads and apps) have been updated to include the new question styles and are available to buy from the **CITB Shop, Apple App Store** and **Google Play**, **CITB Managers and Professionals Health, Safety and Environment Test** covers;

- Legal and management
- Health and welfare
- General safety
- High risk activities
- Environment
- Specialist activities

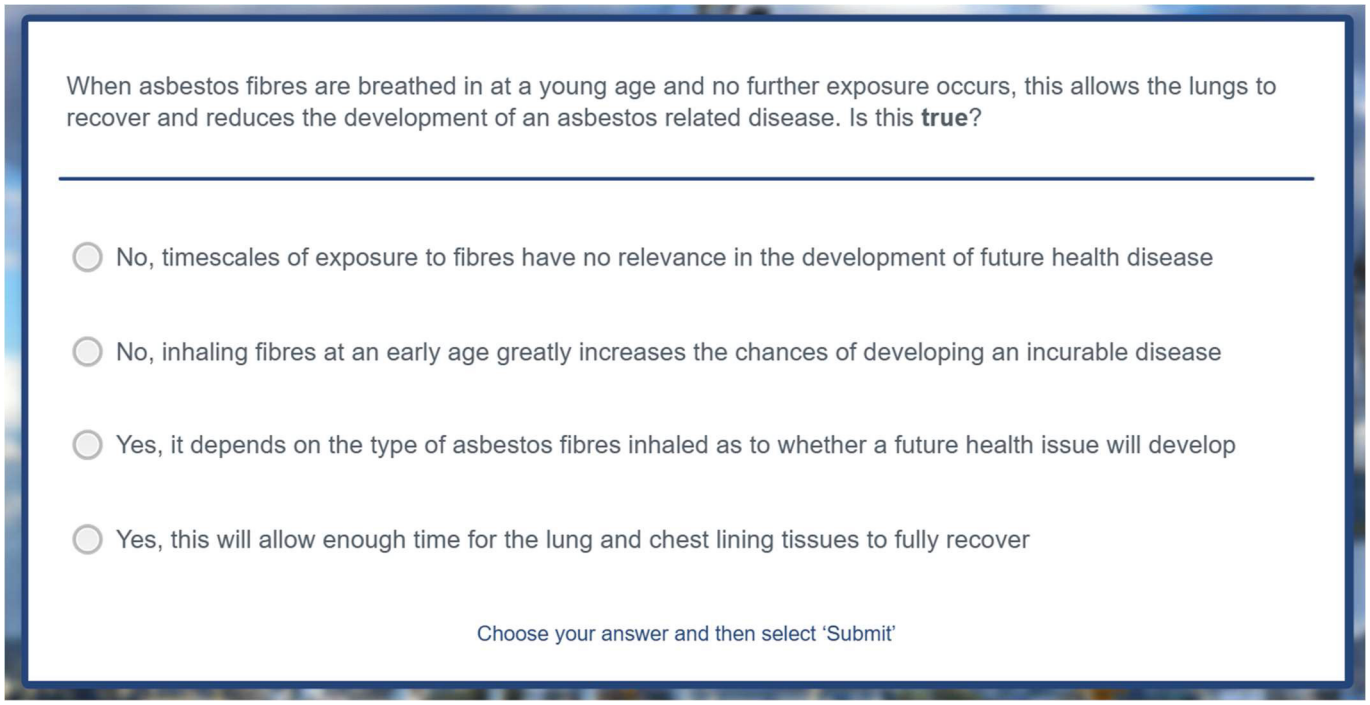
However, as of July 2023 it now includes;

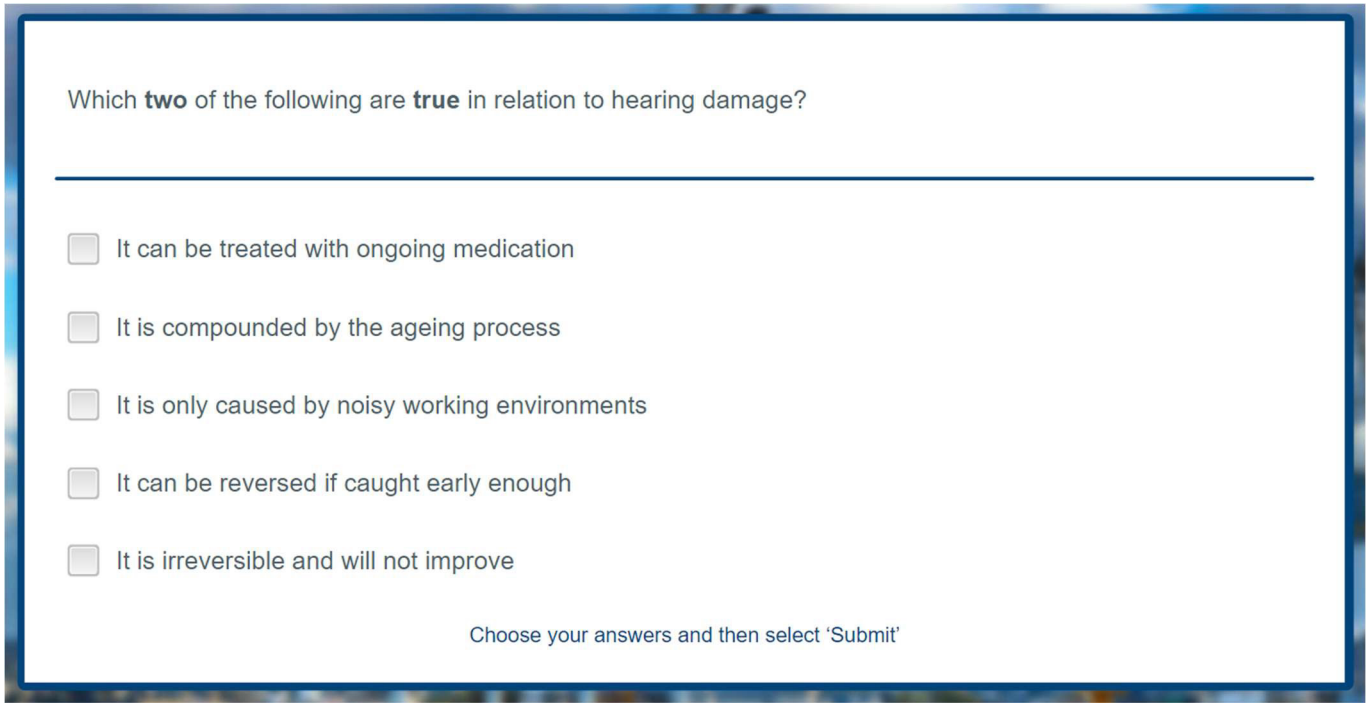
- Mental health
- Leadership
- Occupational health governance
- Behavioural safety
- New technologies
- Improving legislative compliance.

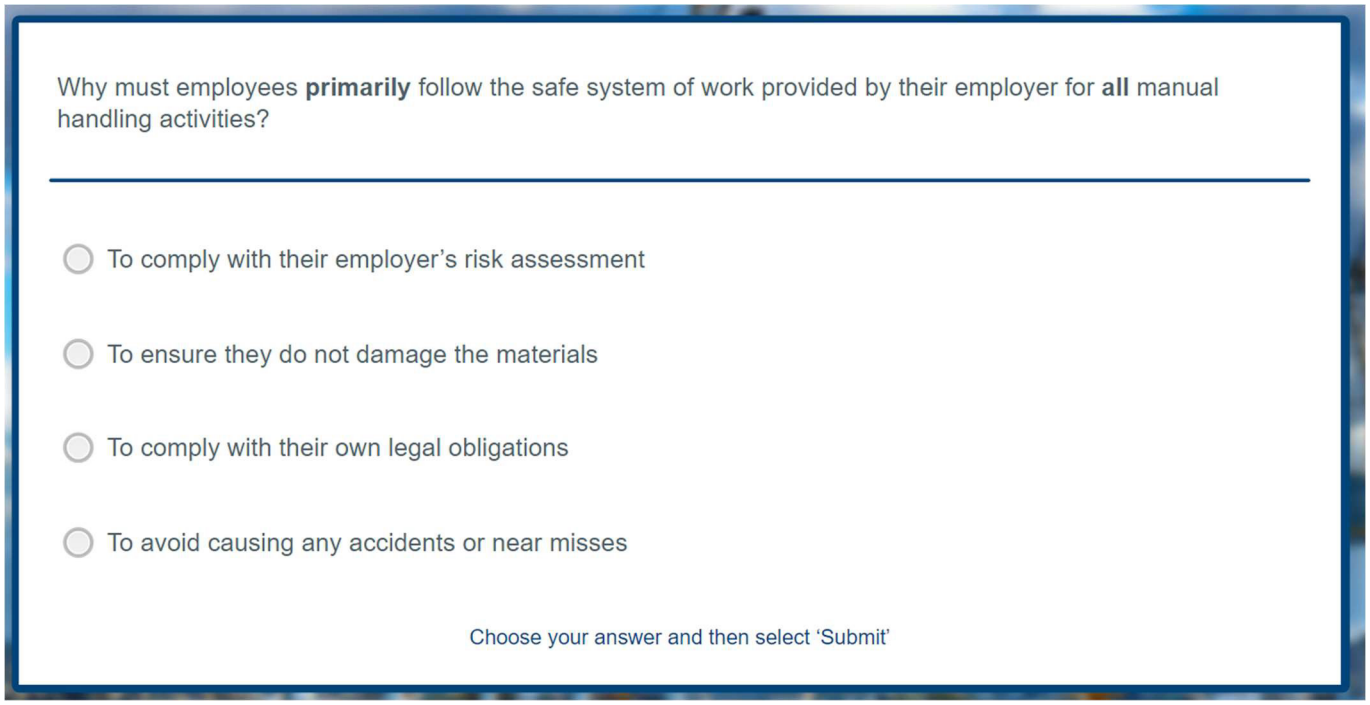
The **CITB Managers and Professionals Health, Safety and Environment Test test** will consist of **50 questions** and to pass you will need to **answer 45 correctly** within the time **limit of 45 minutes**. The questions are all **multiple choice**, but some questions will need **more than one answer**, so please make sure you read the question fully before answering to see if it needs multiple answers.

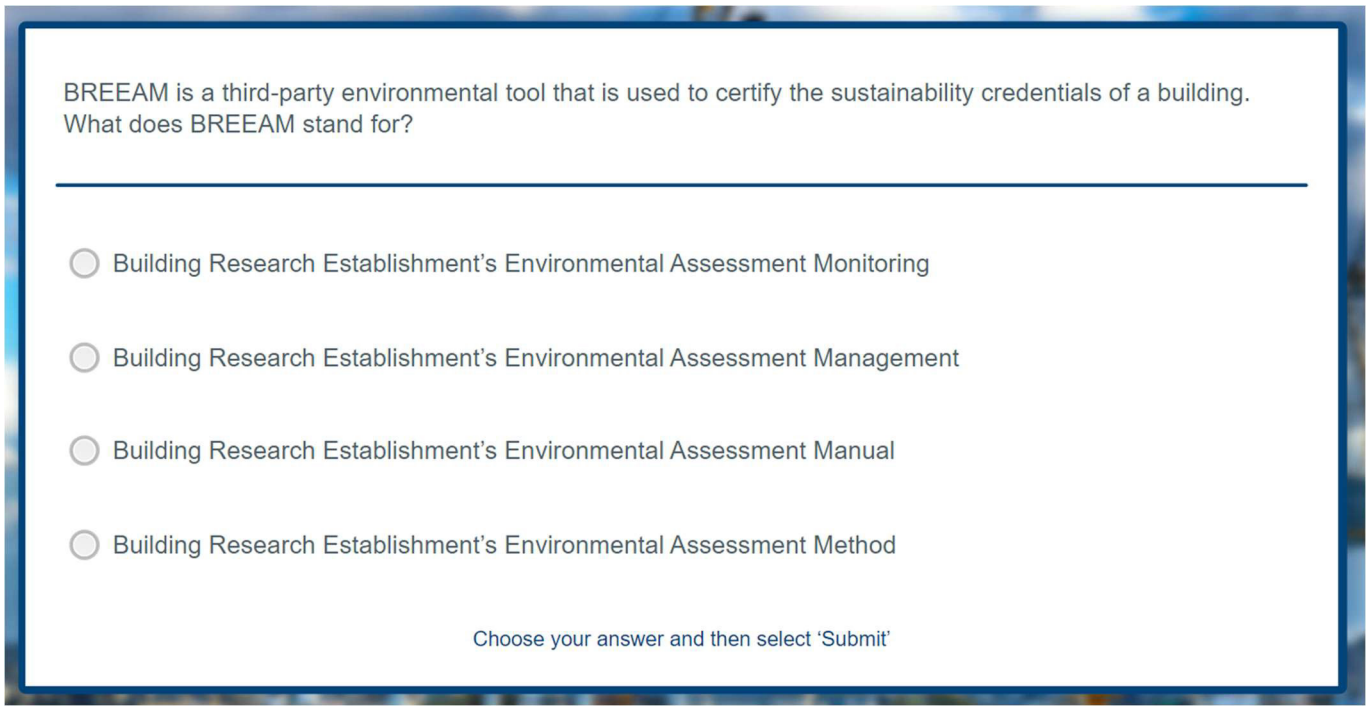
3.2. Sample questions

A **sample test** has been created to provide an indication of the types of questions and different subject areas included in the new MAP test. There are 14 questions for you to try. The sample test should not be used in isolation, but as part of your revision.









Answers: B B&E C D

4. Useful additional info on site safety

4.1. GENERAL RESPONSIBILITIES

Much of the General Responsibilities section is common sense, such as asking a presenter to repeat anything you don't understand during an **induction**. The section covers **chain-of-command issues**, such as: Your supervisor being your first port of call for most concerns and problems on site (a recurring point throughout the test); The site manager being responsible for managing health and safety on a construction site etc.

Awareness of legislation and on-site documentation is also mentioned. **The Health and Safety at Work Act** (in Northern Ireland the Health and Safety at Work Order (NI) 1978) makes the employer responsible for providing a safe workplace and places legal duties on all workers, such as making everyone responsible for reporting unsafe conditions. A **health and safety policy** document covers how health and safety are to be managed on site. A **method statement** states how work is to be carried out. A **risk assessment** details how a job is to be done safely, employees are not legally obliged to write their own.

Some construction industry terms and practices may be unfamiliar to archaeologists: **A Prohibition Notice** means a piece of equipment, an area, or an entire site is not to be used until it is made safe; An **Improvement Notice** issued by a **Health and Safety Executive Inspector** means you must improve the standard and safety of your work; **A toolbox talk** is a short training session on a particular safety topic; **A Permit to Work** allows certain jobs to be carried out under controlled conditions.

4.2. ACCIDENT PREVENTION AND REPORTING

This section focuses on the prevention of **common accidents** and **stresses**, again the importance of site inductions, toolbox talks, risk assessments and method statements appear. Reporting includes **near miss and accident reporting** which are done on paper, and the importance of verbally communicating important information to your supervisors and employers. Some types of accident, and illnesses such as Weil's disease have to be reported to the Health and Safety Executive and this is why it is important to have reporting systems in place.

Although not common in archaeology, the **near miss book** is common in industry, the circumstances of a near miss are recorded every time there is an incident, which could have resulted in someone being injured. These situations are then reviewed with a view to preventing the incident from happening again with more harmful results.

If someone is injured in any way it must be entered in the **accident book**. The injured person or someone acting for them should make the entry, which should include the nature, date, and time of the injury, along with the injured person's home address.

Also covered in this section are **basic statistics**, such as slips, trips and falls being the most common workplace accident; that most construction workers are killed by falls from height, and that you are more likely to have an accident when you first start on a site.

4.3. HEALTH AND WELFARE

The **basic welfare facilities** an employer must provide are: a covered rest area with tables, chairs, and something to heat water. The minimum **hand-washing facilities** that should be provided are hot and cold or hot and warm water with adequate materials for washing.

The importance of keeping hands clean is often overlooked in archaeology when digging in greenfield or deep strata, but on urban or brownfield sites where there is any recent history of land-use it is of utmost importance. Wearing **gloves and hand-washing** can stop the transfer of hazardous substances from hand to mouth. Soap and water should be sufficient to clean very dirty hands, as using solvents such as white spirit can remove the protective layer of natural oils from the skin.

The sources of **common occupational diseases** are also covered. Direct sunlight, mineral oils (such as engine oil) and hazardous substances can cause **skin disorders**. Working near wet ground, standing water, waterways, and sewers carries the risk of an **infectious disease** called Leptospirosis (Weil's disease), the onset of which can easily be mistaken for a flu. Cows and rats can both carry this disease in their urine and for this reason food waste should be securely disposed of, so that rats are not encouraged. The hazards posed by **dust** (occupational asthma), pigeon nests and droppings (infectious disease) and **tetanus infection** via open cuts are also acknowledged.

It should also be noted that the construction industry is completely intolerant of lunchtime drinking and illegal drug use.

4.4. MANUAL HANDLING

It is not necessary to know guideline figures for this section, as you are the only person who can decide what weight is safe for you to lift. If you have a **pre-existing injury or condition** you should tell your supervisor that lifting may be a problem. Erring on the side of caution is obviously key and remembering a few salient points will suffice to get you through the questions from this section. Factors that reduce how much you can safely lift also feature: For example, lifting something down from above head height places extra strain on the arms and back and makes it more difficult to maintain good posture and control of the object. Lifting while sitting and twisting and turning also reduce the amount that can be safely lifted.

The regulations for manual handling mean all employees must make full use of their employer's safe systems of work. An employer must make a **risk assessment** for lifting any heavy load. Before you lift anything, you will have to assess if it is safe to attempt lifting it. The object's volume, condition, weight, and handholds are all factors in safe lifting and simply finding out how much a load weighs is the safest method of assessing if it is too heavy. Obviously, when lifting anything up do so with your feet just less than shoulders- ~~w~~idth apart, keeping your back straight, and using your legs (which should be slightly bend) to do the lifting.

Uneven loads should be lifted with the heavy side nearest you. Remember that wearing back support does not eliminate the risk of injury when lifting.

Large loads should be divided up or help should be sought, even if the object is light but large enough to block your vision when you are moving it. Someone who is helping you to lift something should be around the same height as you and able to lift the same amount.

Archaeologists should note that wheelbarrowing counts as manual handling, with wheel barrows and trolleys being the safest way to move a load over distance.

4.5. WORKING AT HEIGHT

Although archaeologists rarely work at height, doing so usually only to record buildings or to take site photographs, **falls from height are the biggest killer in the construction industry** and feature prominently in the test. Any height where you could injure yourself by falling from it counts as working at height.

Ladders should be checked before use by the person who is going to set up the ladder. Damaged ladders should not be used, they should be marked as such and other people who might use them should be warned they are damaged. Never paint ladders as this can hide any damage. The **safe angle** for a ladder in use is **seventy- five degrees** and tying the ladder at the top is the best way of making a ladder secure. Only one person should be on a ladder at any one time. A ladder can be used as a place of work only while doing light work for a short time. When ladders are used for access to a platform the ladder must extend five rungs above the platform and be tied in place at the top. You should have three points of contact with a ladder at all times.

Normal **scaffold** used in construction is referred to as **tube and fitting scaffold**; only competent and authorised people can erect, alter, or dismantle it. This means that even if a guard-rail is only temporarily removed and put back to allow access it must be done by a qualified scaffolder. The best way to protect people working underneath from objects falling from a scaffold is to stop work below the scaffold and clear the area.

One area of working at height where archaeologists are particularly vulnerable is making occasional or one-off access to **roofs** for the purpose of taking overall site photographs. They should be able to recognise the **fragile roof sign**.

Understand that **crawling boards** should be used to cross fragile roofs, and that covering fragile roof panels with something that can take a person's weight is the safest working procedure. **Edge protection** refers to measures that stop people or objects falling off the edge, **guard-rails (handrails)** and **toe- boards** (upright edges to the platforms) are among these. When it is not possible to use these or **collective fall arrest (soft landing systems)** then a **harness and lanyard** attached to an anchor point must be used. Where there is a risk of falling while working over water a harness and lanyard and a lifejacket must be worn.

Although most archaeologists will probably never have to store materials on a scaffold there are questions on this in the test. **Steel mesh known as brick guards** are the best way to stop material stored on a scaffold from falling between the guard-rails and toe-board. Materials stored on a platform must be secure even in windy weather, the platform must be able to take their weight, and the materials should not make the platform unsafe for others working on it.

The use of **mobile scaffold towers** as photography platforms in archaeology is problematic in regard to health and safety regulations. Mobile tower scaffolds must not be used on soft or uneven ground, nor should they be used if their wheel brakes are not working. The only safe way to reach the platform of a mobile tower scaffold is to use the ladder built into the tower, climbing on the inside.

4.6. PERSONAL PROTECTIVE EQUIPMENT (PPE)

The risk assessment or method statement will state what PPE is required. Your employer must provide you with all the PPE you require to be protected, they must pay for all of it, even the replacements required due to loss or damage. Damaged PPE should be replaced straight away. A hard hat dropped from height onto a hard surface should be replaced immediately.

Never start work without the correct PPE. **Hard hats** should be worn square on the head and must be worn at all times on site unless in a safe area, such as a site office or mess area. **Safety footwear** should be worn all the time on site. When working outdoors in bad weather employers should provide waterproof clothing, as muscle strains are less likely to happen when warm and dry. The PPE MUST reflect the site conditions, and not just be a standard sturdy boots; hi-vis, hard hat, gloves.

It should be recognized that different types of hazard require different types of **specialised PPE**, which may not, however, be sufficient for the task– for example, anti-vibration gloves may not provide complete protection from vibration and other measures have to be employed.

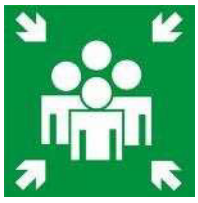
On **dusty sites** (with added hazards, such as asbestos or dangerous toxic fumes), never start work without the correct **Respiratory Protective Equipment (RPE)** and training in its use; a dust mask (or several) will not protect you against fumes. Likewise, expert advice and training is required if wearing a full body harness for the first time. On **noisy sites**, never start work if provided with badly fitting disposable earplugs, wait until you have correctly fitting earplugs. **Eye protection** should be worn whenever there is risk of eye injury– **impact-resistant goggles** should be sufficient protection against flying material (while using grinder for example).

4.7. EMERGENCY PROCEDURES AND FIRST AID

Emphasis in this section of the test is on acting according to your qualifications– in other words: if you are not qualified first aider or health practitioner, then **do not move or attempt to treat casualties**. However, some particular injuries/accidents may require immediate action on your part: for example, burns need immediate immersion in cold water or someone coming into contact with a live wire requires the power being turned off and alarm raised. The importance of getting a **first aider and/or medical help** and **recognising signs** are also highlighted; key examples of emergency signs are shown below:

Eye-wash station

First Aid


Assembly Point

A **first aider** is someone who has completed the appropriate training course. First aiders cannot give medicines without authorisation and for this reason first aid kits should not contain painkillers. Employers must provide **first aid boxes** and eye-wash bottles must also be provided on sites with increased risk of particles or objects getting into someone's eyes.

What to do in case of emergency: The first thing you should do on finding an injured person is check for any danger to yourself and alert others that something has happened. With most injuries the first thing to do is send for the first aider, if there is no first aider on site and there is a serious injury or illness call an ambulance. **Emergency procures and emergency telephone numbers** should be covered in the **site induction**.

4.8. SAFE USE OF HAZARDOUS SUBSTANCES

The safe use of hazardous materials is governed by the **Care of Substances Hazardous to Health (COSHH)** regulations. Whenever you have to use a harmful substance, your supervisor must inform you of the COSHH assessment for that substance. The disposal of chemicals (including oil) also needs to be done safely.

Recognising the relevant COSHH symbols is a large part of this part and some are shown below:

Toxic

Corrosive

Harmful

Note: All colours and types of asbestos are dangerous and can cause lung disease.

4.9. ELECTRICAL SAFETY

Recognise the sign for risk of electrocution:

Running an extension cable above head height is the safest way to protect it (and yourself) while working with electrical equipment or in area where someone else is using it. If a cable needs to cross an area used by vehicles it should have a protection ramp over it and **Ramp Ahead signs** put up for drivers. When using an extension cable, you should uncoil its full length and check for any sign of damage. If a temporary 110v electrical distribution box is too far away, you should ask your supervisor for it to be moved closer by an electrician.

Normally, when working with battery or air-powered tools, 110v electricity is used, as it is less dangerous than 230v. The 110v power cables and connectors are yellow. **Residual current device (RCD)** units are used with 230v appliances; the RCD cuts off the power if there is a fault and they also have a test button to check that they are working properly. A 13amp plug indicates that the tool is 230v. Electrical hand tools should be checked before use for damage and the PAT test label should state when the next safety test is due. Burn marks on the casing of an electric tool can indicate an electrical fault. If you are using an electrical item and the fuse blows, you should turn off the power and check for obvious signs of damage.

In water-logged areas air-powered tools should be used if possible.

4.10. HAND-HELD EQUIPMENT AND TOOLS

Power or hand tools must be appropriate to the job and **inspected before each use**, including simple tools like trowels and chisels. Hand tools with loose heads or damage should be repaired or replaced immediately. Chisels and metal grid pegs should not be used if they have 'mushroomed' out at the head, as this can send shards of metal into the air when they are struck.

You **must be trained and competent to operate a powered hand tool**, this is particularly relevant to cartridge-operated tools as they work like a gun and can be highly dangerous. Before adjusting an electric hand tool you should switch off and disconnect it; it should also be off and disconnected if it is not in use.

Using a disc-cutter on concrete will pose risks of **flying fragments**, **high noise level** and **airborne dust** to anyone in the area. Dust released by grinding or cutting can be controlled by fitting a dust extractor or collector or by wet cutting. When using power tools with rotating blades the guard should be adjusted so that only the necessary amount of blade is uncovered; power tools with missing guards should not be used. The guard stops fragments flying up and protects you from the blade or wheel of the machine. Abrasive wheels should not be used at speeds exceeding the recommended limit, as the wheel could burst.

4.11. FIRE PREVENTION AND CONTROL

This section includes the colour coding of fire extinguishers, probably the most confusing part of the test. At one time extinguishers were made in the different colours, but reverted back to being red with a panel of the appropriate colour, currently there is talk of going back to solid colour extinguishers.

Fire extinguisher colour coding:

Red extinguisher **Contains water.** This is the only colour that cannot be used on burning liquids/oils as they will dilute and spread.
Do not use on electrical fires (like yellow) or metal fires (like all four colours).

Black extinguisher **Contains carbon dioxide** (CO_2). Works by excluding oxygen. Can be used on electrical fires (as can blue).
Do not use on metal fires (like all four colours). Do not hold the nozzle when operating as it can become very cold.

Yellow extinguisher **Contains foam**. Can be used on liquid/oil fires (as can blue).
Do not use on electrical fires (like red) or metal fires (like all four colours).

Blue extinguisher **Contains powder**. Can be used on electrical fires (as can black).
Do not use on metal fires (like all four colours).

To summarise: Black (CO_2) and blue (powder) can be used on electrical fires, the other two colours can't.

All four colours cannot be used on metal fires.
Only red (water) cannot be used on liquid/oil fires.

Apart from the colour coding and appropriate extinguisher use, the other questions from the fire section are quite straightforward: If you discover a fire raise the alarm; Do not block a fire escape route; Go to the fire assembly point when the fire alarm sounds; Remember that all fires need heat, fuel and oxygen, without any one of these there is no fire; Frost around the valve of a Liquid Petroleum Gas cylinder indicates it is leaking.

Archaeologists will probably be unfamiliar with **hot work permits**, which are needed to perform tasks that could potentially start a fire (such as cutting steel, welding, or soldering pipes), these jobs need to have a fire extinguisher

at hand and always check for signs of fire when done.

4.12. SAFETY SIGNS AND SIGNALS.

Virtually all of this section is about safety signs, which can be divided into warning, mandatory, prohibitive and informative; the only exceptions involves not giving **hand signals** to crane or truck drivers without the appropriate training.

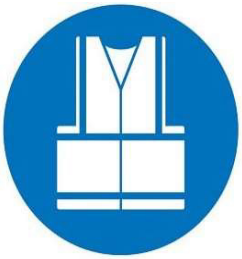
Blue and white mandatory signs indicate things you must do:

Wear ear defenders

Wear eye protection

Wear safety boots

Wear safety gloves



Wear hi-vis clothing

Red and white prohibition signs with a red line indicate things you must not do:

No access to pedestrians

Unsafe scaffold, keep off

Do not enter

Yellow signs warn of hazards

Flammable substance Laser Radiation Explosive

Red signs give information for fire control:

Fire point

Fire alarm

Fire hose

Green signs show safe conditions:

Emergency shower

Emergency phone

Drinking water

Orange signs indicate COSHH symbols:

Harmful to the environment

Flammable

Explosive

4.13. SITE TRANSPORT SAFETY

This part of CSCS test concerns area which most archaeologists will be familiar with and have no trouble passing, provided they use common sense. The questions relate to all aspects of vehicular and pedestrian access and control of traffic on construction sites. As a pedestrian keep to pedestrian routes on site where possible; well-organised sites should have pedestrian routes divided from traffic by barriers; To operate site plant you must be competent and authorised; You can ride on plant only if it is designed to carry passengers; Mobile cranes and forklifts in use should be avoided completely; Faults with vehicles and plant, such as flat tyres and leaks should be reported immediately, as the vehicle is unsafe.

4.14. NOISE AND VIBRATION

This section deals with other commonly encountered **potential hazards**, continuous exposure to which may lead to a **permanent health damage** (occupational illness), especially if suitable mitigation measures are not introduced (mainly correct PPE and/or working method).

Notes on noise: An early sign of **hearing damage** is temporary deafness, continual exposure to noise can cause irreversible damage; It is taken as a clear sign that noise could be at a problematic level if you have to shout to be heard by someone standing 2m away; If you are near excessive noise, do not stay in the area without ear protection that fits and is in working order; Be aware that wearing ear protection can make you less aware of what is happening around you; If you think your hearing has been damaged by noise in the workplace, you should ask your employer or doctor to arrange a hearing test.

Notes on vibration: A particular condition resulting from continuous use of vibrating equipment is so called **vibration white finger**– a condition in which the nerves and blood vessels of the hand are damaged causing incurable disability. The three early signs of this condition are temporary loss of sensation in the fingertips, whiteness of fingertips, and tingling in the fingers. Any of these symptoms should be reported as soon as they appear. and-arm vibration can be reduced by doing the **work in short spells**, and not holding the tool too tightly. Although wearing **anti-vibration gloves** may help, their use is no guarantee protection from vibration. Your supervisor should explain the risk assessment and how to use vibrating tools safely.

4.15. EXCAVATIONS AND CONFINED SPACES

In these two work environments the emphasis is on getting out immediately if there is any indication of hazardous conditions and on checking the **integrity of the excavation** and **air quality of the confined space** before each shift.

Excavations: The safe way to access an excavation is by ladder; The excavation must be supported (or stepped) if there is any risk of the **sides collapsing**; **Guard-rails** should be put around the top of an excavation to stop anyone from falling in. When digging near **buried services** you should dig with a spade or shovel and be aware that services are sometimes marked with yellow plastic tape and/or overlain by tiles/bricks. If you do damage a buried cable, never attempt to touch it, stop work and report it immediately; **Strange smelling soil** is probably an indicator of contamination; Be aware of the danger posed by **vehicles backing up to the edge of an excavation** with the engine running filling the excavation with **exhaust fumes**.

Confined spaces: Working in a confined space requires **three safety documents– method statement**, **risk assessment**, and the appropriate **in-date Permit to Work**. Confined space work also requires **a rescue plan**, **a rescue team**, and a **top man** on duty outside the space to initiate the rescue plan. **Air meters** should be used before the shift starts and **gas alarms** should be in place. Sludge in the bottom of a confined space is a hazard as it is slippery and can release **toxic or explosive gases**; its presence requires the use of RPE (Respiratory Protective Equipment); You should be aware of the dangers indicated by **strange smells** such as that of methane which is explosive and not breathable, and the rotten egg smell of hydrogen sulphide.

5. ABBREVIATIONS

AQP Academically Qualified Person
CIfA Chartered Institute for Archaeologists
CITB Construction Industry Training Board
CRO Construction Related Occupation
COSHH Care of Substances Hazardous to Health
CSCS Construction Skills Certification Scheme
DAP Combined Demolition and Plant
HSE Health and Safety Executive
HIW Highways
LAEE Lift and Escalator
LPG Liquid Petroleum Gas
MEWP Mobile Elevating Work Platform
PAT Portable Appliance Test
PPE Personal Protective Equipment
PQP Professionally Qualified Person
RCD Residual Current Device
RIDDOR Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
RPE Respiratory Protective Equipment
WAH Working at Height

6. Other Card Schemes

6.1. ENERGY AND UTILITIES SKILLS REGISTER

Affiliated with CSCS allowing EUSR (Energy & Utility Skills Register) cardholders access to construction sites. However, it does not allow CSCS
cardholders access to sites which require an EUSR card.

6.2. SOLAS Safe Pass

The Safe Pass is a health and safety awareness training programme introduced by SOLAS, the Training and Employment Authority of the Republic of Ireland. CSCS and SOLAS have a mutual recognition agreement, so if you have one you do not need the other.

6.3. PTS

The Personal Track Safety (PTS) Certificate is required by anybody working on Network Rail tracks in the UK. This card is specialised towards working on railways and includes hearing test and drug and alcohol testing components.

6.4. QUARRY PASSPORT

Run by Safety Pass Alliance, and often confused with Safe Pass.The Quarry Passport is an independent scheme used by some operators, it is not a legal requirement. From 1st November 2009 persons involved in Schedule 1 activities (which include operating digging machines, mobile cranes and site dumpers) in a quarry are required to hold a Quarries Skills Certification Scheme registration card. Schedule 1 activities can be checked at the HAS website.

7. Useful Links

How to Apply: www.cscs.uk.com/applying-for-cards/

Preparing for the test: www.citb.co.uk/cards-testing/health-safety-environment-test/preparing-for-the-test/

Health and Safety Test: https://www.citb.co.uk/cards-testing/health-safety-environment-test/

Health and Safety Executive: http://www.hse.gov.uk

SOLAS Safe Pass: http://www.solas.ie/Pages/Safepass.aspx

Energy & Utility Skills Register: http://www.eusr.co.uk/

SPA Quarry Passport: http://www.safetypassports.co.uk/html/quarries.html