RSPH Level 1 Award in Health and Safety in a Construction Environment

January 2020

Total Qualification Time	**29 hours**
Guided Learning Hours	**21 hours**

Ofqual/CCEA Qualification Number: 601/6345/8
Qualifications Wales: C00/0728/4

Description:

The objective of the RSPH Level 1 Award in Health and Safety in a Construction Environment qualification is to provide candidates with fundamental knowledge and understanding of health and safety in a construction environment. Successful achievement of this qualification will demonstrate an individual's knowledge and understanding of the health and safety requirements of a construction site and, together with achievement of the CITB Operative Health, Safety and Environment Test, will enable individuals to obtain the Construction Skills Certification Scheme (CSCS) Labourers' Green Card. The Learning Outcomes and assessment criteria for the qualification were developed by industry experts from CSCS's Card Management Committee following a recommendation that all workers on construction sites should be formally qualified. The qualification is suitable for everyone seeking employment in labouring occupations in the construction industry.

The Health and Safety at Work etc. Act 1974 places responsibilities on employers and employees with respect to health and safety at work.

Content:

Unit: Health and Safety in a Construction Environment

Total unit time: 29 hours
Guided Learning: 21 hours
Unit Level: 1
Unit reference number: K/505/1933

Summary of Learning Outcomes:

To achieve this qualification a candidate must:

1. **Know the principles of risk assessment for maintaining and improving health and safety at work,** *with reference to:*

    1.1 The purpose of risk assessments and method statements.
    1.2 The legal requirements of risk assessments and method statements.
    1.3 Common causes of work-related:
    - fatalities
    - injuries

    1.4 The implications of not preventing accidents and ill health at work.
    1.5 The meaning of the following in relation to health and safety at work:
    - accident
    - near miss
    - hazard
    - risk
    - competence

    1.6 Typical hazards and potential risks associated with the following:
    - resources
    - equipment
    - obstructions
    - storage
    - services
    - wastes
    - work activities

    1.7 The importance of reporting accidents and near misses.
    1.8 Typical accident reporting procedures.
    1.9 Who is responsible for making accident reports.
    1.10 The purpose of dynamic risk assessments.

2. **Know the importance of safe manual handling in the workplace,** *with reference to:*

    2.1 The reasons for ensuring safe manual handling in the workplace.
    2.2 The potential injuries and ill health that may occur from incorrect manual handling.
    2.3 The employee's responsibilities under current legislation and official guidance for:
    - moving and storing materials
    - manual handling
    - mechanical lifting

    2.4 The procedures for safe lifting in accordance with official guidance.
    2.5 The importance of using site safety equipment when handling materials and equipment.

2.6 Aids available to assist manual handling in the workplace.
2.7 How to apply safe work practices, follow procedures and report problems when carrying out safe manual handling in the workplace.

3. **Know the importance of working safely at height in the workplace,** *with reference to:*

3.1 The term 'working at height'
3.2 The employee's responsibilities under current legislation and official guidance whilst working at height.
3.3 Hazards and potential risks associated with the following:
- dropping tools and debris
- stability of ladders
- overhead cables
- fragile roofs
- scaffolds
- internal voids
- equipment
- the working area
- other people

3.4 How hazards and potential risks associated with working at height can be controlled.
3.5 The regulation that controls the use of suitable equipment for working at height.

4. **Know risks to health within a construction environment,** *with reference to:*

4.1 The main groups of substances hazardous to health under current regulations.
4.2 Common risks to health within a construction environment.
4.3 The types of hazards and potential risks that may occur in the workplace linked with the use of drugs and alcohol.
4.4 The importance of the correct storage of combustibles and chemicals on site.
4.5 The importance of personal hygiene within a construction environment.
4.6 The potential risks to the health of workers exposed to asbestos.
4.7 The types of asbestos waste.
4.8 The types of personal protective equipment (PPE) that may be used when dealing with hazardous materials.

5. **Know the importance of working around plant and equipment safely,** *with reference to:*

5.1 Ways in which moving plant, machinery or equipment can cause injuries.
5.2 The hazards/risks relating to the use of plant and equipment.
5.3 The importance of safeguards located near where plant, machinery and equipment are being used.
5.4 The importance of keeping a safe distance away from plant, machinery or equipment until clear contact is made with the operator.
5.5 How method statements can assist in ensuring the safety of workers where moving plant, machinery or equipment is in use.

5.6 The ways to eliminate or control risks relating to working around plant, machinery or equipment.
5.7 Hazard warning signs and symbols used when operating, working with, around or in close proximity to plant, machinery or equipment.

Candidates successfully achieving this unit will have basic factual knowledge of Health and Safety in a construction environment and/or knowledge of facts, procedures and ideas to complete well-defined routine tasks and address simple problems; and is aware of aspects of information relevant to health and safety.

Indicative Content:

1 **Know the principles of risk assessment for maintaining and improving health and safety at work**

1.1 *Purpose of risk assessments and method statements.*

Risk assessments identify the nature and extent of work-related risks and what needs to be done to control these risks; risk assessments are a legislative requirement under certain regulations such as the Management of Health and Safety at Work Regulations.

Method statements detail how a task should be carried out safely by outlining the hazards, giving a step by step guide and stating what controls and precautions must be adopted.

1.2 *Legal requirements of risk assessments and method statements.*

Legal requirement due to Regulation 3 of the Management of Health and Safety at Work Regulations; risk assessments are also required by the Control of Lead at Work Regulations, Manual Handling Operations Regulations, Control of Asbestos Regulations and Control of Substances Hazardous to Health Regulations.

It is a requirement for employers or the self-employed to make an assessment of the health and safety risks of carrying out their work in order to identify what needs to be done to control risks to health and safety; employers of five or more people are required to record their risk assessments.

Method statements are a written, detailed way of demonstrating compliance with the legal requirement placing a duty on employers to provide safe systems of work, under the Health and Safety at Work Act.

1.3 *Common causes of work-related fatalities.*

Fatalities reported to Health and Safety Executive through Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) including; falls from height, collapse of excavations, collapse of structures, collapse of material stacks, struck by mobile plant, overturning of mobile plant, contact with machinery, struck by falling object, contact with electricity (including overhead and underground services), slip, trip and falls on same level.

Common causes of work-related injuries: Major and over seven day injuries reported to the Health and Safety Executive through RIDDOR including; those listed under “Fatalities” above, lifting and handling injuries, objects and particles ejected from materials, tools and machinery.

1.4 *Implications of not preventing accidents and ill health at work.*

The potential effects to the individual of common hazards on the site and common causes of ill-health; the potential effect to the business/employer such as financial, legal and reputational consequences; loss of productivity

for both employer and employee; potential effects on third parties (members of the public, tenants etc.); improvement and prohibition notices.

1.5 *Meaning of the following in relation to health and safety at work.*

An *Accident* is any unplanned and unexpected event that resulted in injury or ill health of people, or damage or loss to property, plant, materials or the environment or a loss of business opportunity.

A *Near miss* is any unplanned and unexpected event which, while not causing injury or damage or loss, might have done so if the circumstances had been only slightly different. (Example: a heavy object is dislodged from a height in an area in which people are working. It lands at the side of one of the people. He is not injured but had he been a foot closer he would have been struck by the falling object).

A *Hazard* is something with the capacity to cause harm, such as electricity, chemicals, asbestos, working at height.

A *Risk* is the likelihood that a hazard will actually cause harm, together with a measure of the extent of the harm.

Competence is having sufficient knowledge of the tasks to be undertaken and the risks involved, the experience and ability to carry out the assigned duties in relation to the tasks, recognising owns limitations and taking appropriate action to prevent harm to those carrying out the tasks, or those affected by the tasks.

1.6 *Typical hazards/risks associated with:*

Resources; such as cements (breathing in of dust, dermatitis), solvents (breathing in of fumes), bagged goods, bricks, blocks (impact, manual handling risks, trip hazard); loose materials such as sand and aggregates (slip and trip hazard), timber (risk of impact, trip hazard), paint (breathing in of fumes, slips from spillages), gases and fuel (explosion, breathing in of fumes, dermatitis from fuel in contact with skin, slip hazard from spillage) and water (slips).

Equipment; Impact, cuts, abrasions and stab wounds, risk of entanglement with power tools, ejection of material from power tools or from materials being worked on, vibration white finger, musculo-skeletal injuries from operation and carrying equipment around site.

Moving plant and vehicles; Risks to workers, other road users and pedestrians from being struck by moving plant and vehicles, being struck by loads carried on moving plant and vehicles, overturning of moving plant and vehicles, exhausts from engines collecting in excavations and confined spaces, proximity of live overhead power cables, fuel hazards, noise, vibration.

Fixed plant and equipment; Movement of tower cranes, lifts and hoists, dangerous moving parts, ejection and entanglement.

Falls from access equipment; Risks associated with scaffolding, scaffolding towers, mobile elevated work platforms (MEWPs), advanced access systems, ladders, hop-ups.

Obstructions; Trips, falls from clambering over obstructions, inappropriate manoeuvring of mobile plant and vehicles, impairment of sight lines, unnecessary and inappropriate movement of materials, risk of collision.

Storage; Potential collapse of material stacks, material falling from stacks, leakage of fuel and chemicals, dust hazard, manual handling risks when storing material, fire risk.

Services; Risk of contact with overhead and underground electricity cables, breakage of water and gas supplies.

Wastes; Manual handling risks, cuts and abrasions from sharp edges or projections, risk if on-site burning of waste is uncontrolled, risks associated with skips and debris chutes, special waste such as asbestos and lead.

Work activities; Risks associated with working at height and in excavations, demolition, concrete pouring, scaffolding erection and dismantling.

1.7 *Importance of reporting accidents and near misses.*

Allows for accident investigation and finding the cause of an accident / near miss; prevention or reduction of risk of future occurrences; use in training; development of positive health and safety culture; legal requirement.

1.8 *Typical accident reporting procedures.*

Who to report to, use of site books and accident forms, requirements under RIDDOR.

1.9 *Who is responsible for making accident reports.*

Responsibilities following an accident, persons involved, witnesses, supervisors, managers and health and safety professionals (responsible persons).

1.10 *The purpose of dynamic risk assessments.*

Understanding that dynamic risk assessment is the continuous assessment of risk in the rapidly changing circumstances of an operational incident, in order to implement the control measures necessary to ensure an acceptable level of safety. Knowing where dynamic risk assessment is most likely to be used. (i.e.
the police, railways, nuclear industry, fire services etc. But also understanding that the approach is relevant in almost any work environment where the situation is constantly changing.)

2 **Know the importance of safe manual handling in the workplace**

2.1 *Reasons for ensuring safe manual handling in the workplace.*

To prevent ill health and injury to self or others.

2.2 *Potential injuries and ill health that may occur from incorrect manual handling.*

Injuries such as cuts, bruises, abrasion, burns, muscle damage including hernia, musculo-skeletal damage including breaks, connective tissue damage such as to ligaments and damage to spinal discs.

2.3 *Employee's responsibilities under current legislation and official guidance for:*

Moving and storing materials; Employees should only store materials in their designated area, not allow stored materials to obstruct access routes, walkways or emergency escape routes; store flammable material away from other materials and keep all storage areas tidy.

Manual handling; Under the Manual Handling Operations Regulations, employees should follow systems of work developed for their safety, make proper use of safety equipment (including PPE), cooperate with their employer on all matters affecting health and safety, inform their employer of any hazardous handling activities that they identify and ensure that their activities do not put others at risk.

Mechanical lifting; General duties under the Health and Safety at Work Act and the Management of Health and Safety at Work Regulations (the Management Regulations), for example to take reasonable care of themselves and others who may be affected by their actions and to co-operate with others when carrying out mechanical lifting operations; only operate mechanical lifting machinery if they are competent to do so; inspect mechanical lifting equipment prior to use to make sure that it is safe to operate and report any defects to their employer.

2.4 *Procedures for safe lifting in accordance with official guidance.*

Ergonomic lifting, assessing loads before lifting, posture for correctly lifting and lowering loads, good handling techniques for lifting, pulling and pushing loads; team lifting and avoidance of manual handling tasks.

2.5 *Importance of using site safety equipment when handling materials and equipment.*

How site safety equipment when handling materials and equipment can prevent the individual or someone else getting hurt and avoid damage to materials and equipment.

2.6 *Aids available to assist manual handling in the workplace.*

Aids such as trollies and sack trucks, dollies, gloves, dockers' hooks, straps, pump trucks, cages, totes, suction cup handles, hoists, levers, roller conveyors and chutes.

2.7 *How to apply safe work practices, follow procedures and report problems when carrying out safe manual handling in the workplace.*

Company procedures, requirements of Manual Handling Operations Regulations.

3 Know the importance of working safely at height in the workplace

3.1 *Definition.*

Work at height means work in any place where, if there were no precautions in place, a person could fall a distance liable to cause personal injury.

3.2 *Employee's responsibilities under current legislation and official guidance whilst working at height.*

Responsibilities under the Work at Height Regulations, to include responsibility to report any activity or defect relating to work at height which he / she knows is likely to endanger the safety of him / herself or another person and to use any work equipment or safety device provided by his / her employer for working at height in accordance with the training and / or instruction given.

Employees also have general legal duties to take reasonable care of themselves and others who may be affected by their actions, and to co-operate with their employer to enable their health and safety duties and requirements to be complied with; this will include making sure the employee can get safely to and from where they work at height; making sure that that the equipment is suitable, stable and strong enough for the job and is maintained and checked regularly; the employee must make sure that they do not overload or overreach when working at height; take precautions when working on or near fragile surfaces, consider falling objects, emergency evacuation and rescue procedures and reporting and health and safety issues.

3.3 *Hazards/risks associated with:*

Dropping tools and debris; Risk of tools and debris injuring persons below and damaging structures; potential of structures collapsing and injuring bystanders.

Stability of ladders; Risk of ladder slipping out from foot, slipping sideways, ladder falling forwards or backwards, risk of individual on ladder losing balance and falling or dropping objects.

Overhead cables; Risk of electric shock

F*ragile roofs;* Risk of falling through, dropped tools or materials breaking through and injuring persons below.

Scaffolds; Risk of falling from or through scaffolding, collapse of scaffolding or peeling of scaffolding from structure.

Internal voids; Risk of falling into voids, slips and trips.

Equipment; Risk of electric shock, cuts and abrasions, entanglement, injury from ejection of material.

The working area; Risk of trips and slips, collision with moving vehicles / plant; inhalation of dust, gases or fibres; being struck by falling objects.

Other people; Risk due to inappropriate behaviours of fellow workers; physical assault.

3.4 *How hazards/risks associated with working at height can be controlled.*

Avoid work at height where it is reasonably practicable to do so; if work at height cannot be avoided, prevent falls using an existing place of work that is already safe, if the risk cannot be eliminated reduce the risk and minimise the distance and consequences of a fall by use of appropriate safety equipment; use of Work at height Access equipment Information Toolkit (or WAIT), restrict access to ladders, lifts and hoists; use of safety nets to prevent injury from falling objects; tie – off / secure equipment used when working at height; use of warning signs and restrict access to areas beneath people working at height.

3.5 *Regulation that controls the use of suitable equipment for working at height.*

Work at Height Regulations (WAHR) Lifting Operations and Lifting Equipment Regulations (LOLER) Provision and Use of Work Equipment Regulations (PUWER).

4 **Know risks to health within a construction environment**

4.1 *Substances hazardous to health under current regulations.*

Chemicals (such as solvents like toluene for thinning paints), products containing chemicals (such as paints which contain toluene), fumes, dusts, vapours, mists, gases toxic, flammable and asphyxiating gases.

4.2 *Common risks to health within a construction environment.*

Risks such as exposure to certain chemicals and sunlight which may cause skin cancer; exposure to cement products which may result in dermatitis and occupational asthma; exposure to dusts which can cause lung diseases such as cancers and silicosis; exposure to vibration (tools, vehicles etc.) which may cause vibration white finger and skeletal

problems; exposure to noise which could result in occupational deafness and tinnitus

4.3 *Types of hazards/risks that may occur in the workplace linked with use of drugs and alcohol.*

Drugs and alcohol reduce concentration, inhibit the ability to complete tasks, reduce the effectiveness of senses, affect balance, increase hostility and risk of violence, can cause drowsiness and over confidence and may affect mental health.

4.4 *Importance of the correct storage of combustibles and chemicals on site.*

Correct storage minimises the risk of fire and explosions, prevents unplanned exposure of the workforce to substances and protects other people and the environment.

4.5 *Importance of personal hygiene within a construction environment.*

How good personal hygiene reduces the risks of conditions such as dermatitis, accidental ingestion of toxic substances and the transmission of infectious diseases.

4.6 *Potential hazards/risks to the health of workers exposed to asbestos.*

Hazards and risks such as mesothelioma, asbestos related cancer, asbestosis and pleural thickening.

4.7 *Situations and locations in which asbestos may be encountered in a construction environment.*

Asbestos containing materials such as sprayed coatings on ceilings, walls, beams and columns; asbestos cement; loose fill insulation; lagging on boilers and pipes; Asbestos Insulating Board (AIB) used as ceiling tiles, panels in fire doors and partition walls; asbestos rope seals, gaskets and paper; vinyl floor tiles; textiles such as fire blankets; textured decorative coatings on walls and ceilings such as artex; likelihood of encountering different types of asbestos waste.

4.8 *Types of personal protective equipment (PPE) used when dealing with hazardous materials.*

Appropriate RPE, eye protection, gloves, protective clothing, protective footwear.

5 Know the importance of working around plant and equipment safely

5.1 *Ways in which moving machinery can cause injuries.*

People can be struck and injured by moving parts of machinery or ejected material; parts of the body can be drawn in or trapped between rollers, belts and pulley drives; sharp edges can cause cuts and amputations; sharp-pointed parts can cause stab or puncture wounds; rough surface

parts can cause friction or abrasion; people can be crushed between mechanical parts moving together or towards a fixed part of the machine, wall or other object; shearing can be caused by parts moving past one another; parts of the machine, materials and emissions (such as steam or water) can be hot or cold enough to cause burns or scalds; electricity powering the machinery can cause electrical shock and burns; movement of plant.

5.2 *Hazards/risks relating to the use of plant and equipment.*

Risks of collision with other road users, pedestrians, structures and overhead power cables; risk of build-up of exhaust fumes near excavations; hazards due to fuel, noise, vibration and lifting equipment such as chains and slings; risk of collapse to excavations or demolition in progress; hazards/risks from moving power equipment such as drills, power saws.

5.3 *State the importance of safeguards located near where plant, machinery and equipment are being used.*

Safeguards to be close to where plant machinery and equipment are being used because if they are not close the safeguards may be found inconvenient to use; if safeguards (particularly fencing) are not close it may be possible for workers to work inside the danger zone; in the event of malfunction of plant machinery etc. ready access may be needed to emergency stop devices etc.

5.4 *Importance of keeping a safe distance away from plant/machinery and equipment until clear contact is made with the operator.*

If clear contact is not made the operator may cause the equipment to commence operation thereby: risking injury to the third party by collision, ejection of material or by the fall of materials (e.g. by using equipment to demolish a wall).

5.5 *How method statements can assist in ensuring the safety of workers where moving plant, machinery or equipment is in use.*

Method statements can ensure workers and plant are segregated by the use of designated pedestrian routes and exclusion zones; outline the hazards onsite identified by risk assessments; provide guidance on how to move around safely and the control measures in place; give information on safe driving practices to drivers and ensure only competent personnel operate moving plant.

5.6 *Ways to eliminate or control hazards/risks relating to working around plant and equipment.*

Separation of pedestrian and vehicle routes; training requirements; timing of deliveries and vehicle movements; use of banksmen and signallers; requirements for engines to be switched off and keys removed; use of drop off areas and exclusion areas for people and plant; traffic control such as one-way lanes, speed cameras and signals; warning signs and proper guarding of accessible moving parts.

5.7 *Hazard warning signs and symbols used around the use of plant and equipment.*

Warning signs associated with general plant activities, signs giving information about specific PPE requirements, signs prohibiting pedestrian or plant access, signs marking plant operating areas, information on use of banksmen or access and egress, specific hazards such as noise or fuel, warnings of buried services, overhead cables, excavations, weight limits and delivery areas.

Assessment:

The knowledge and understanding of the candidates will be assessed by a multiple-choice examination. The multiple choice examination is provided by RSPH. A candidate who is able to satisfy the learning outcomes will achieve a score of at least 36 out of 45 in the examination. Strong performance in some areas of the qualification content may compensate for poorer performance in other areas.

The multiple choice test consists of 45 questions and is of 60-minute duration.

Centre Guidance:

Suggested Reading:

Five Steps to Risk Assessment. Health & Safety Executive www.hse.gov.uk
Essentials of Health & Safety at Work. HSE Books ISBN 0 7176 6179 2

Useful web-sites

HSE Website: www.hse.gov.uk
The Royal Society for the Prevention of Accidents: www.rospa.com

Recommended prior learning:

There are no recommended prior learning requirements for this qualification. The Society does, however, recommend that candidates have a level of literacy equivalent to *Level 1*(but see notes on Special Assessment Needs below)

National Occupational Standards

The qualification has been mapped to the following National Occupational Standards:

Unit HSK1 Basic Hazard Awareness
Unit HSS1 Make sure your own actions reduce risks to health and safety

Further details of these National Occupational Standards can be obtained from RSPH Qualifications.

Special Assessment Needs:

Centres that have candidates with special assessment needs should consult The Society's Reasonable Adjustments and Special Consideration Policy; this is available from RSPH Qualifications and RSPH Qualification's web site (www.rsph.org).

Recommended Qualifications and Experience of Tutors:

The Society would expect that tutors have teaching experience and a qualification in a relevant subject area, but recognises that experienced teachers can often compensate for a lack of initial subject knowledge, or experienced practitioners for a lack of teaching experience.

Suitable qualifications for the RSPH Level 1 Award in Health and Safety in a Construction Environment include:

a) Degree or Dip. HE in Environmental Health
b) HNC/D in the above.
c) Level 3 qualification in Health and Safety such as:

RSPH *Level 3 Award in Health and Safety for Supervisors in the Workplace*

d) NEBOSH Certificate in Occupational Safety and Health.

Progression Opportunities:

On completion of this qualification, learners will be able to implement the knowledge they have gained in any construction environment they are in.

Successful candidates can also progress on to further qualifications, such as:

RSPH Level 2 Award in Health & Safety in the Workplace

How to apply to offer this qualification:

To become a centre approved to offer this qualification, please complete the 'Centre Application Form' which can be found on our website in the Qualifications and Training section. If you are already an approved centre, please complete the 'Add an additional qualification form' which can be downloaded from the Centre area on the website www.rsph.org.uk Please ensure that you include details of your quality assurance procedures. You will need to attach a CV to this application. Please contact the Qualifications Department at centreapproval@rsph.org.uk if you need any assistance.

Other Information:

All RSPH specifications are subject to review. Any changes to the assessment or learning outcomes will be notified to Centres in advance of their introduction. To check the currency of this version of the specification, please contact the Qualifications Department or consult the RSPH website.

Centres must be registered with RSPH.

Any enquiries about this qualification should be made to:

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