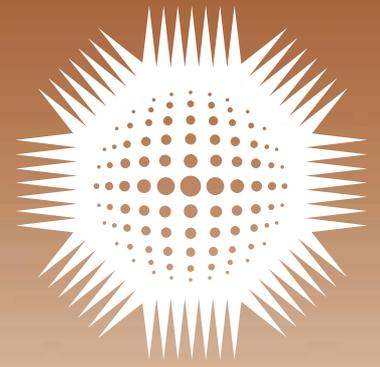


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Guide to the NEBOSH National Certificate in Construction Health and Safety



nebosh



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Guide to the NEBOSH National Certificate in Construction Health and Safety (November 2014 specification)

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1. Introduction

The NEBOSH National Certificate in Construction Health and Safety has been offered since 1989 and is established as a leading health and safety qualification for the construction industry, with over 15000 successful candidates.

The National Construction Certificate is designed for supervisors and managers within the construction industry and is designed to provide a sound breadth of underpinning knowledge that enables them to discharge more effectively their duties with respect to health and safety in construction activities.

1.1 Benefits for employers

Accidents and work-related ill-health affect all types of workplaces and occupations. However, the Health and Safety Executive (HSE) reported that the construction industry suffered the largest amounts of fatal injuries of all sectors in 2013/14. Of the 133 workers killed during 2013/14 nearly a third (42) worked in the construction industry. During 2013/14 there were a total of 77593 RIDDOR reportable injuries reported to the HSE. Relative to other industries, a higher proportion of reported injuries were caused by falls from height, falling objects, contact with moving machinery, collapses/overturms and electricity. These statistics are in addition to the thousands of construction workers and ex-construction workers who die annually from mesothelioma (a total of 2535 deaths for 2013/14) and other occupational cancers and work-related lung diseases. An estimated 2.3 million working days (1.7 million for ill-health and 592000 due to workplace injury) were lost in 2013/14 in the construction industry (<http://www.hse.gov.uk/Statistics/industry/construction/index.htm>).

In addition to the direct costs of sick pay and absence, employers can find themselves dealing with criminal prosecution (there were a total of 674 prosecutions in the UK during 2013/14), claims for compensation, adverse publicity and harm to both business reputation and profitability. The country's annual sick pay bill (for ill health and injury) is estimated at £14.2 billion in 2012/13 (<http://www.hse.gov.uk/statistics/overall/hssh1314.pdf>).

The vast majority of occupational injuries, incidents and ill-health are avoidable by good health and safety management. By saving money, improving productivity and raising workforce morale, effective health and safety management should be recognised as an essential element of a successful management strategy.

Many larger construction organisations choose the NEBOSH National Construction Certificate as a key part of their supervisors' or management development programme. By ensuring that line managers have a sound understanding of the principles of risk management they build an effective safety culture in the company. Smaller construction organisations often choose the NEBOSH National Construction Certificate as the appropriate qualification for the manager taking the lead on health and safety issues.

This course can be delivered within an organisation, or employees can attend accredited training courses run throughout the UK by our network of accredited course providers. NEBOSH accredited course providers offer a variety of flexible course formats, so training can be arranged according to employer needs.

1.2 Professional membership

Holders of NEBOSH National Certificate in Construction Health and Safety are entitled to Associate Membership (AIOSH) of the Institution of Occupational Safety and Health (IOSH). The qualification also meets the academic requirements for Technical membership (Tech IOSH) of the Institute of Occupational Safety and Health (IOSH – www.iosh.co.uk) and Associate membership (AIIRSM) of the International Institute of Risk and Safety Management (IIRSM – www.iirsm.org).

The NEBOSH National Certificate in Construction Health and Safety meets the headline entrance criteria requirements for Construction Safety Associate membership (AaPS) of the Association for Project Safety (APS - www.aps.org.uk).

Holders of both the NEBOSH International or National Diploma in Occupational Health and Safety *and* the NEBOSH National or International Certificate in Construction Health and Safety meet the headline entrance criteria requirements for Registered Construction Safety Practitioner (RMaPS) membership of the Association for Project Safety (APS - www.aps.org.uk).

Holders of this qualification are also entitled to Associate membership (AIIRSM) of the International Institute of Risk and Safety Management (IIRSM – www.iirsm.org).

1.3 Qualification level and UK accreditation

The NEBOSH National Construction Certificate is accredited and credit rated by the Scottish Qualifications Authority (SQA - www.sqa.org.uk) for delivery across the UK. It is rated within the Scottish Credit and Qualifications Framework (SCQF - www.scqf.org.uk) at SCQF Level 6 with 17 SCQF credit points.

For users in England, Wales and Northern Ireland, this is comparable to a Vocationally-Related Qualification (VRQ) at Level 3 within the National Qualifications Framework (NQF) and Qualifications and Credit Framework (QCF), or A-Level standard.

For further information please refer to the “*Qualifications can cross boundaries*” comparison chart issued by the UK regulators, available from the SQA website (www.sqa.org.uk).

1.4 Key topics covered

- Legal requirements for health and safety at work
- Implementation of health and safety management systems
- Identification of construction workplace hazards
- Methods of construction hazard control
- Practical application of knowledge and understanding

1.5 Course tuition and private study time requirements

Unit NGC1:	36 hours tuition and 23 hours private study	Total: 59 hours
Unit NCC1:	68 hours tuition and 29 hours private study	Total: 97 hours
Unit NCC2:	2 hours tuition and 6 hours private study	Total: 8 hours

A programme of study therefore needs to be based around a minimum of **106 taught hours** and approximately **58 hours of private study** for an overall total of **164 Hours**.

A full-time block release course would be expected to last for a minimum of three weeks (fifteen working days) and a part-time day release course would be spread over at least fifteen weeks. For candidates studying by open or distance learning, the tuition hours should be added to the recommended private study hours to give the minimum number of hours that this mode of study will require.

Quoted hours *do not* include assessment time, ie, sitting written examinations or the practical application unit (see 1.6).

1.6 Entry requirements

There are no specific barriers, in terms of academic qualifications, skills or experience to entry to the NEBOSH National Construction Certificate programme. However, it should be noted that currently the assessments are offered, and must be answered, in English only. The qualification includes a requirement to write a short report based on the candidate's own workplace, which must also be in English. Candidates should discuss this with the accredited course provider before undertaking the qualification.

1.7 Minimum standard of English required for candidates

The standard of English required by candidates studying for the NEBOSH National Construction Certificate must be such that they can both understand and articulate the concepts contained in the syllabus. It is important to stress that the onus is on accredited course providers to determine their candidates' standards of proficiency in English.

NEBOSH recommends to accredited course providers that candidates undertaking this qualification should reach a minimum standard of English *equivalent* to an International English Language Testing System score of **6.0** or higher in IELTS tests in order to be accepted onto a National Construction Certificate programme.

For further information please see the latest version of the IELTS Handbook or consult the IELTS website: http://www.ielts.org/institutions/test_format_and_results.aspx.

Candidates wishing to assess their own language expertise may consult the IELTS website for information on taking the test: <http://www.ielts.org/faqs.aspx>.

1.8 Languages

All unit examinations and the practical assessment must be taken in English.

1.9 Legislation

The syllabus refers to UK legislation. Where the syllabus refers to the legislative system of England and Wales, candidates may refer to the legislative systems and requirements that apply in Scotland or Northern Ireland, provided that these references are clearly indicated as such.

If this qualification is delivered overseas, accredited course providers may refer to examples of local legislation as part of the course programme but examination questions will refer to UK legislation only.

1.10 Legislative updates

Relevant new legislation will become examinable in detail six months after its date of introduction. However, candidates will be expected to be essentially up-to-date at the time of the examination and, whilst a detailed knowledge will not be expected, reference to new or impending legislation, where relevant to an examination question, will be given credit.

Please note, NEBOSH will not ask questions related to legislation that has been repealed, revoked or otherwise superseded.

NB: Accredited course providers are expected to ensure their course notes remain current with regard to new legislation.

1.11 National Occupational Standards (NOS) and best practice

The syllabus is mapped to the relevant National Occupational Standards (NOS):

- NOS for Health and Safety (Standalone units) published by Proskills Sector Skills Council (www.proskills.co.uk)
- NOS to Manage health, safety, welfare and environmental factors published by Construction Skills SSC (www.cskills.org).

The mapping of the syllabus units to each NOS can be found on pages 12-13.

1.12 Qualification type

NEBOSH qualifications are categorised as 'Other' qualifications by SQA Accreditation in Scotland. These are categorised as Vocationally-Related Qualifications (VRQs) in England, Wales and Northern Ireland.

VRQs provide the knowledge and practical skills required for particular job roles through a structured study-based training programme, that combine the testing of knowledge and understanding in written examinations with practical application of learning in the workplace.

VRQs are a popular type of qualification because they are nationally recognised, flexible and offer routes for progression to employment or further study.

1.13 Qualification progression

Unit NGC1 is common to:

- NEBOSH National Certificate in Construction Health and Safety
- NEBOSH National General Certificate in Occupational Health and Safety
- NEBOSH National Certificate in Fire Safety and Risk Management

This enables students seeking to develop specialist knowledge to combine units across these NEBOSH qualifications. NGC1 unit holders do not need to re-sit this examination providing it was successfully achieved within the five year completion period for each qualification.

Candidates wishing to further develop their health and safety expertise may consider studying:

- NEBOSH National Diploma in Occupational Health and Safety

This is designed to provide students with the expertise required to undertake a career as a health and safety practitioner and also provides a sound basis for progression to postgraduate study.

Candidates looking to use their expertise overseas may consider:

- NEBOSH International Certificate in Construction Health and Safety
- NEBOSH International General Certificate in Occupational Health and Safety.

These qualifications focus on international standards and management systems rather than UK legislation.

Further information regarding our qualification portfolio can be found on our website: www.nebosh.org.uk/qualifications

1.14 Programmes offered by NEBOSH-accredited course providers

Accredited course providers can be located using the 'Where to study' tab on our website: www.nebosh.org.uk

NB: Candidates are advised to check up-to-date information on course dates with accredited course providers directly.

1.15 Examination dates

'Standard' examination dates for this qualification are available in March, June, September and December annually. Accredited course providers may request 'on-demand' examinations on a date of their choosing for this qualification.

1.16 Specification date

The November 2014 specification for this qualification replaces the previous May 2010 specification for all examinations from (and including) 7 October 2015.

1.17 Syllabus development and review

The syllabus has been developed by NEBOSH following extensive consultation with key stakeholders, notably accredited course providers, professional bodies, employers, standards setting organisations, enforcement bodies and subject experts. NEBOSH would like to take this opportunity to thank all those who participated in the development, piloting and implementation of this qualification.

1.18 Further information for candidates

Further information for candidates including a qualification overview leaflet, examiner's report and guidance regarding the practical unit can be found via the NEBOSH website (www.nebosh.org.uk).

1.19 Further information for accredited course providers

Further information for accredited course providers including policies and procedures and guidance on the practical unit can be found in the accredited course providers' section of the NEBOSH website.

2. Qualification structure

2.1 Unit assessment

The National Construction Certificate in Occupational Health and Safety is divided into three units. All units are mandatory unless an exemption can be applied (see 2.2). There are no optional units. Candidates may choose to take one, two or all three units at the same time or at different times.

NB: For candidates planning to do two or all three units, Unit NCC2 (Construction health and safety practical application) is not normally offered independently of the taught units (NGC1/NCC1). Candidates will be required to complete the NCC2 assessment within 10 working days of sitting the examination for unit NGC1 and/or NCC1, on a date to be agreed with their accredited course provider.

Unit NGC1: Management of health and safety

- Unit NGC1 is a taught unit, assessed by one two-hour written examination
- Each written examination consists of ten 'short-answer' questions (8 marks each) and one 'long-answer' question (20 marks)
- Each examination paper covers the whole unit syllabus with at least one question per unit element and all questions are compulsory
- Candidate scripts are marked by external examiners appointed by NEBOSH
- A sample examination paper can be found in Section 5.

Unit NCC1: Managing and controlling hazards in construction activities

- Unit NCC1 is a taught unit, assessed by one two-hour written examination
- Each written examination consists of ten 'short-answer' questions (8 marks each) and one 'long-answer' question (20 marks)
- Each examination paper covers the whole unit syllabus with at least one question per unit element. All questions are compulsory
- Candidate scripts are marked by external examiners appointed by NEBOSH
- A sample examination paper can be found in Section 5.

Unit NCC2: Construction health and safety practical application

- Unit NCC2 is assessed by a practical assessment carried out in the candidate's own workplace
- This is held on a date set by the accredited course provider and must be taken within 10 working days of a written examination
- The practical application is internally assessed by the accredited course provider and externally moderated by NEBOSH
- Guidance for candidates and accredited course providers is available in a separate document available on the NEBOSH website (www.nebosh.org.uk).

NEBOSH applies best practise in relation to assessment setting and marking. NEBOSH uses external assessment for written examinations and assignments: scripts are sent to NEBOSH and undergo rigorous marking, checking and results determination processes to ensure accuracy and consistency.

2.2 Unit exemptions

Exemptions for the following units are available:

- Unit NGC1: Management of health and safety

Exemptions are allowable for a set time period, usually 5-years. Candidates/accredited course providers **must**, therefore, refer to the NEBOSH website (www.nebosh.org.uk) for an up-to-date list of applicable exemptions and the rules for use of the exemptions.

2.3 Achieving the qualification

Candidates will need to pass **all three units** within a **five year** period to achieve the overall qualification. The five years commences from the result declaration date of the first successful unit.

2.4 Unit pass standards

The pass standard for each unit may vary according to pre-determined criteria but is normalised to 45% for the written papers (NGC1 and NCC1) and 60% for the practical application unit (NCC2).

2.5 Unit certificates

Candidates who are successful in an individual unit will be issued with a unit certificate, normally within 40 working days of the issue of the result notification. Units are not graded and the unit certificates will show a 'Pass' only.

2.6 Qualification grade

When candidates have been awarded a unit certificate for all three units (ie, have achieved a Pass in units NGC1, NCC1 and NCC2), the marks are added together and a final grade is awarded as follows:

Pass	150 - 179 marks
Credit	180 - 209 marks
Distinction	210 marks or more

2.7 Qualification parchment

Once a candidate has achieved a Pass in all three units and the qualification grade awarded they are normally considered to have completed the qualification and a qualification parchment will be issued, within 40 working days of the result declaration date for the third successfully completed unit.

However, once the result of the third successfully completed unit has been issued the candidate has **20 working days** from the date of issue of that result to either:

- Inform NEBOSH in writing of their intention to re-sit a successful unit for the purposes of improving a grade*
- Submit an Enquiry About Result (EAR) request (see Section 3.3).

* In the event that the candidate does not re-sit the unit(s) as intended, on expiry of the units (five years from the declaration date of the first successful unit), a qualification parchment will automatically be issued showing the original declaration date.

2.8 Re-sitting unit/s

If a candidate's performance in a unit is lower than a pass, candidates may re-sit just the unit in which they have been unsuccessful providing that they re-sit **within 5-years of the result declaration date for their first successful unit** (also see Section 2.3). Where a candidate has yet to achieve a successful unit of a qualification, the 5-year rule does not apply until a unit has been successfully achieved.

Candidates who wish to improve the mark from a unit they have successfully passed in order to improve their qualification grading to a credit or distinction, may do so providing that they re-sit the unit/s within the qualifying period (see section 2.3). The candidate must notify NEBOSH in writing if they wish to do this (see section 2.7). Any candidate who re-sits a successful unit, and does not surpass their original mark, eg, is referred in the paper, will keep the *original* mark awarded. Re-sit marks are not capped. There is no limit to the number of re-sits within this five year period.

Candidates who register for any unit whilst awaiting a result from a previous sitting of an examination for the same qualification may not seek a refund of the registration fee if they retrospectively claim exemption from any part of the qualification, subsequent to the issue of the awaited result.

3. Policies

3.1 Requests for access arrangements/reasonable adjustments

Access arrangements and reasonable adjustments are modifications which are approved in advance of an examination to allow attainment to be demonstrated by candidates with either a permanent or long-term disability or learning difficulty, or temporary disability, illness or indisposition.

Requests for access arrangements or reasonable adjustments must be made to NEBOSH by accredited course providers at least one month before the assessment.

For further details see the NEBOSH *“Policy and procedures for access arrangements, reasonable adjustments and special consideration”* available from the NEBOSH website (www.nebosh.org.uk).

3.2 Requests for special consideration

Special consideration is a procedure that may result in an adjustment to the marks of candidates who have not been able to demonstrate attainment because of temporary illness, injury, indisposition or an unforeseen incident at the time of the assessment.

Candidates who feel disadvantaged due to illness, distraction or any other reason during the assessment must report this to the invigilator (or the accredited course provider in the case of a practical examination) before leaving the examination room and request that their written statement, together with the invigilator’s comments on the statement, be sent by the accredited course provider to NEBOSH.

Requests for special consideration must be made to NEBOSH by the accredited course provider as soon as possible and no more than seven working days after the assessment.

For further details see the NEBOSH *“Policy and procedures for access arrangements, reasonable adjustments and special consideration”* available from the NEBOSH website (www.nebosh.org.uk).

3.3 Enquiries about results and appeals

NEBOSH applies detailed and thorough procedures to moderate and check assessment results before they are issued. It thereby ensures that the declared results are a fair and equitable reflection of the standard of performance by candidates.

There are, however, procedures for candidates or accredited course providers to enquire about results that do not meet their reasonable expectations. An ‘enquiry about result’ (EAR) must be made in writing within one month of the date of issue of the result to which it relates.

For details see the NEBOSH *“Enquiries About Result (EARs) and appeals policy and procedures”* document available from the NEBOSH website (www.nebosh.org.uk).

3.4 Malpractice

Malpractice is defined as any deliberate activity, neglect, default or other practice by candidates and/or accredited course providers that compromise the integrity of the assessment process, and/or the validity of certificates. Malpractice may include a range of issues from collusion or use of unauthorised material by candidates, to the failure to maintain appropriate records or systems by accredited course providers, to the deliberate falsification of records in order to claim certificates. Failure by an accredited course provider to deal with identified issues may in itself constitute malpractice.

For further details see the NEBOSH *“Malpractice policy and procedures”* document available from the NEBOSH website (www.nebosh.org.uk).

4. Syllabus - NEBOSH National Certificate in Construction Health and Safety (November 2014 specification)

Structure

The qualification is divided into three units. Unit NGC1 is further divided into five elements and Unit NCC1 into eight elements.

The matrix below indicates how the syllabus elements map to the relevant National Occupational Standards (See also section 1.11):

- National Occupational Standards (NOS) for Health and Safety (Standalone units) published by Proskills Sector Skills Council (www.proskills.co.uk).
- NOS to Manage health, safety, welfare and environmental factors published by Constructionskills SSC (www.cskills.org)

Unit NGC1: Management of health and safety

Element Number	Element Title	Recommended hours	Relevant Proskills units and elements	Relevant Construction skills units and element	Page
1	Foundations in health and safety	7	PROHSS1-3, 5-6	CO1.2-1.4	16
2	Health and safety management systems - Plan	3	PROHSS2-3, 5	CO1.2, 1.3	21
3	Health and safety management systems - Do	17	PROHSS1-3, 6	CO1.2-1.4	23
4	Health and safety management systems – Check	5	PROHSS1-3, 5, 6, 8	CO1.2-1.4	26
5	Health and safety management systems - Act	4	PROHSS1-3, 8	CO1.2, 1.3	30
	Minimum unit tuition time	36			
	Recommended private study time	23			

Unit NCC1: Managing and controlling hazards in construction activities

Element Number	Element Title	Recommended hours	Relevant Proskills units and elements	Relevant Construction skills units and element	Page
1	Construction law and management	5	HSS1-9	CO1.2-1.4	33
2	Construction site hazards and controls	7	HSS1-6, 8-9	CO1.3, 1.4	36
3	Vehicle and plant movement – hazards and control	5	HSS1-4, 6, 8-9	CO1.3, 1.4	39
4	Musculoskeletal hazards and control	7	HSS 1-4, 6, 8-9	CO 1.4	41
5	Work equipment – hazards and risk control	6	HSS1-4, 6, 8-9	CO 1.4	43
6	Electrical safety	4	HSS1-4, 6, 8-9	CO 1.4	45
7	Fire safety	6	HSS1-4, 6, 8-9	CO1.3- 1.4	48
8	Chemical and biological health – hazards and risk control	8	HSS1-4, 6, 8-9	CO1.3, 1.4	51
9	Physical and psychological health – hazards and risk control	5	HSS1-4, 6, 8-9	CO1.3, 1.4	55
10	Working at height – hazards and risk control	7	HSS1-4, 6, 8-9	CO1.3, 1.4	58
11	Excavation work and confined spaces – hazards and risk control	5	HSS1-4, 6, 8-9	CO1.3, 1.4	61
12	Demolition and deconstruction – hazards and risk control	3	HSS1-4, 6, 8-9	CO1.3, 1.4	63
	Minimum unit tuition time	68			
	Recommended private study time	29			

Unit NCC2: Construction health and safety practical application

Element Number	Element Title	Recommended hours	Relevant Proskills units and elements	Relevant Construction skills units and element	Page
1	Construction health and safety practical application	2	<i>HSS1-6, 8-9</i>	<i>CO1.2-1.4</i>	66
	Minimum unit tuition time	2			
	Recommended private study time	6			
	<i>Minimum total tuition time</i>	<i>106</i>			
	<i>Recommended total private study time</i>	<i>58</i>			
	<i>Total overall hours</i>	<i>164</i>			

4.1 Unit NGC1: Management of health and safety

Element 1: Foundations in health and safety

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 1.1 Outline the scope and nature of occupational health and safety
- 1.2 Explain the moral and financial reasons for promoting good standards of health and safety in the workplace
- 1.3 Explain the legal framework for the regulation of health and safety including sources and types of law
- 1.4 Explain the scope, duties and offences of employers, managers, employees and others under the Health and Safety at Work etc. Act 1974
- 1.5 Explain the scope, duties and offences of employers, managers, employees and others under the Management of Health and Safety at Work Regulations
- 1.6 Outline the legal and organisational health and safety roles and responsibilities of clients and their contractors
- 1.7 Outline the principles of assessing and managing contractors.

Content

1.1 The scope and nature of occupational health and safety

- The multi-disciplinary nature of health and safety; the barriers to good standards of health and safety (complexity, competing and conflicting demands, behavioural issues)
- Meanings and distinctions between:
 - health, safety and welfare.

1.2 The moral and financial reasons for promoting good standards of health and safety

- The size of the health and safety 'problem' in terms of the numbers of work-related fatalities and injuries and incidence of ill-health
- Societal expectations of good standards of health and safety
- The business case for health and safety: insured and uninsured costs of accidents and ill-health; employers' liability insurance.

1.3 The legal framework for the regulation of health and safety including sources and types of law

*The Guide to the NEBOSH National Certificate in Construction
Health and Safety (November 2014 specification)*

- The influence and role of the European Union in harmonising health and safety standards
- Meaning of Criminal law
 - offence against the state
 - prosecution to establish guilt
 - burden of proof with reference to S40 Health and Safety at Work etc. Act 1974 (onus of proving limits of what is practicable, etc)
- Meaning of Statute law
 - Acts of Parliament, Health and Safety at Work etc. Act 1974, health and safety regulations, approved codes of practice, official guidance: their relationship and status
 - absolute and qualified duties (practicable and reasonably practicable)
 - relevance to criminal and civil law
- The structure and role of criminal courts and the penalties they can impose
- Criminal law liabilities
 - role, functions and powers of enforcement authorities, the courts and other associated bodies: Health and Safety Executive (HSE)/HSE Northern Ireland (HSENI); local authority; fire and rescue service; Procurators Fiscal in Scotland (including homicide/corporate homicide); Office of Rail Regulation (ORR); Crown Prosecution Service (CPS) (for manslaughter / corporate manslaughter); insurance companies; Environment Agency/Scottish Environment Protection Agency/Northern Ireland Environment Agency
 - Fees for Intervention (FFI) – with reference to the Health and Safety (Fees) Regulations 2012
 - powers of inspectors under the Health and Safety at Work etc. Act 1974:
 - enforcement notices (improvement, prohibition): conditions for serving; effects; procedures; rights and effects of appeal; penalties for failure to comply
 - simple cautions
 - prosecution: summary and indictable (solemn in Scotland) offences
 - the Corporate Manslaughter and Corporate Homicide Act 2007: the offence and available penalties
 - defences
- Meaning of Common law
 - precedents and case law
 - the importance of common law
 - relevance to criminal and civil law
- Meaning of Civil law
 - from the private individual seeking compensation
 - burden of proof
 - statute-barred
- The structure and role of civil courts and the types of remedy they can impose
- The role of employment tribunals
- Civil law liabilities
 - civil wrong (tort/delict)
 - tort/delict of negligence
 - duty of care (neighbour principle)

- tests and defences for tort/delict of negligence: duty owed / duty breached / injury or damage sustained
- contributory negligence
- vicarious liability
- the employer's civil common law duty to provide a safe place of work, safe plant and equipment, safe systems of work, training and supervision, and competent employees
- breach of statutory duty in relation to new and expectant mothers

1.4 The scope, duties and offences of employers, managers, employees and others under the Health and Safety at Work etc. Act 1974

- Scope: covers all workplaces, work activities, employed and self-employed with reference to:
 - general duties of employers to their employees
 - the health, safety and welfare of employees and the health and safety of those affected by work activities (eg client, visitors, contractors, the public)
 - the provision and maintenance of safe plant and systems of work
 - safe use, handling, storage and transport of articles and substances
 - the provision of information, instruction, training and supervision
 - safe place of work
 - safe access and egress
 - adequate welfare facilities
 - legal duty to prepare a safety policy
 - appointment of safety representatives
 - duty to consult
- General duties of employers and self-employed to persons other than their employees
- General duties of persons concerned with premises to persons other than their employees
- General duties of manufacturers etc as regards articles and substances for use at work
- General duties of employees at work:
 - to take reasonable care for the health and safety of themselves and of other persons who may be affected by their acts or omissions at work
 - to co-operate with employer
- General duties of all persons
 - duty not to interfere with or misuse things provided for health and safety at work
- Duty not to charge employees for things done or provided for health and safety at work
- Offences due to fault of other person
- Offences by bodies corporate
 - consent or connivance or neglect on the part of, any director, manager, secretary or other similar officer of the body corporate.

1.5 The scope, duties and offences of employers, managers, employees and others under the Management of Health and Safety at Work Regulations

- Scope
- Risk assessment
- Principles of prevention to be applied
- Health and safety arrangements
- Health and safety assistance
- Procedures for serious and imminent danger and for danger areas
- Information for employees
- Co-operation and co-ordination where two or more employers share a workplace
- Ensuring employees are provided with adequate health and safety training
- Employees' duties
- Employee to work in accordance with any training
- Employee to inform employer of any work situation which represents a serious and immediate danger to health and safety; and any shortcoming in the employer's protection arrangements for health and safety
- Temporary workers
- Risk assessment in respect of new or expectant mothers
- Protection of young persons.

1.6 The legal and organisational health and safety roles and responsibilities of clients and their contractors

- Relationship between client and contractor
- Duties each has to the other and to the other's employees
- Effective planning and co-ordination of contracted work, including interaction with existing staff
- Management controls that must be applied for significant construction projects:
 - duties and responsibilities of the Client, Principal Designer, Principal Contractor, Contractors, Workers and Domestic Clients
- HSE notification, health and safety plan, health and safety file

1.7 The principles of assessing and managing contractors (links to 1.4)

- Scale of contractor use
- Pre-selection and management of contractors
- Contractor responsibilities

Recommended tuition time not less than 7 hours

Element 2: Health and safety management systems – Plan

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 2.1 Outline the key elements of a health and safety management system
- 2.2 Explain the purpose and importance of setting policy for health and safety
- 2.3 Describe the key features and appropriate content of an effective health and safety policy.

Content

2.1 Key elements of a health and safety management system

- The HSE's Managing for health and safety (HSG65)
 - Plan
 - Do
 - Check
 - Act
- OHSAS 18001: Occupational health and safety management systems
 - policy (Plan)
 - planning (Plan)
 - implementation and operation (Do)
 - checking and corrective action (Check)
 - management review (Act)
 - continual improvement (Act)

2.2 Purpose and importance of setting policy for health and safety

- The role of the health and safety policy in decision-making and the differing needs of individual organisations
- Legal duties
 - duty to prepare a safety policy (linked to 1.4)
 - when to record in writing.

2.3 Key features and appropriate content of an effective health and safety policy

- Stating the overall aims of the organisation in terms of health and safety performance :
 - general statement of intent
 - setting overall objectives and quantifiable targets (specific, measurable, achievable, reasonable, timebound SMART principles)
 - basic concept of benchmarking
 - views of interested parties
 - technological options
 - financial, operational and business requirements
 - signatory to statement
- Defining the health and safety roles and responsibilities of individuals within the organisation
 - organising for health and safety: allocation of responsibilities; lines of communication and feedback loops; the role of line managers in implementing and influencing the health and safety policy and monitoring its effectiveness
- Specifying the arrangements for achieving general and specific aims:
 - health and safety arrangements: the importance of specifying the organisation's arrangements for planning and organising, controlling hazards, consultation, communication and monitoring compliance with, and assessing the effectiveness of, the arrangements to implement the health and safety policy
- Circumstances that may lead to a need to review the health and safety policy in order to maintain currency and effectiveness (eg, technological, organisational or legal changes).

Recommended tuition time not less than 3 hours

Element 3: Health and safety management systems - Do

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 3.1 Outline the organisational health and safety roles and responsibilities of employers, directors, managers and supervisors
- 3.2 Explain the concept of health and safety culture and its significance in the management of health and safety in an organisation
- 3.3 Outline the human factors which influence behaviour at work in a way that can affect health and safety
- 3.4 Explain how health and safety behaviour at work can be improved
- 3.5 Explain the principles and practice of risk assessment
- 3.6 Explain the general principles of prevention
- 3.7 Identify the key sources of health and safety information
- 3.8 Explain what factors should be considered when developing and implementing a safe system of work for general activities
- 3.9 Explain the role and function of a permit-to-work system.
- 3.10 Outline the need for emergency procedures and the arrangements for contacting emergency services
- 3.11 Outline the requirements for, and effective provision of, first aid in the workplace.

Content

3.1 Organisational health and safety roles and responsibilities of employers, directors, managers and supervisors

- Organisational roles of directors / managers / supervisors
- Senior management demonstrating commitment by:
 - ensuring availability of resources so the occupational health and safety management system is established, implemented and maintained
 - defining roles and responsibilities
 - appointing member of senior management with specific responsibility for health and safety
 - appointing one or more competent persons and adequate resources to provide assistance in meeting the organisation's health and safety obligations including specialist help where applicable (link 1.5)
 - engagement and management of contractors (link 1.6)
 - role in reviewing health and safety performance.

3.2 Concept of health and safety culture and its significance in the management of health and safety in an organisation

- Meaning and extent of the term 'health and safety culture'
- Relationship between health and safety culture and health and safety performance
- Indicators which could be used to assess the effectiveness of an organisation's health and safety culture:
 - tangible outputs or indicators of an organisation's health and safety culture (eg accidents, absenteeism, sickness rates, staff turnover, level of compliance with health and safety rules and procedures, complaints about working conditions)
- Influence of peers.

3.3 Human factors which influence behaviour at work

- Organisational factors:
 - eg culture, leadership, resources, work patterns, communications
- Job factors:
 - eg task, workload, environment, display and controls, procedures
- Individual factors:
 - eg competence, skills, personality, attitude and risk perception
- Link between individual, job and organisational factors.

3.4 How health and safety behaviour at work can be improved

- Securing commitment of management
- Promoting health and safety standards by leadership and example and appropriate use of disciplinary procedures
- Competent personnel with relevant knowledge, skills and work experience
- Identifying and keeping up to date with legal requirements
- Effective communication within the organisation:
 - merits and limitations of different methods of communication (verbal, written and graphic)
 - use and effectiveness of notice boards and health and safety media such as films, digital media, company intranet, posters, toolbox talks, memos, employee handbooks
 - co-operation and consultation with the workforce and contractors where applicable (roles and benefits of employee participation, safety committees and employee feedback)
- Duties to consult; appointment, functions and entitlements of employee representatives (trade union-appointed and elected); safety committees (legal requirement, typical constitution, requirements for / ways to promote effectiveness)

- Training:
 - the effect of training on human reliability
 - opportunities and need for training provision (induction and key health and safety topics to be covered, job change, process change, introduction of new legislation, introduction of new technology).

3.5 Principles and practice of risk assessment

- With reference to legal requirements (Element 1)
- Meaning of hazard and risk and risk assessment:
 - hazard: 'something with the potential to cause harm (this can include articles, substances, plant or machines, methods of work, the working environment and other aspects of work organisation)'
 - risk: 'the likelihood of potential harm from that hazard being realised'
 - risk assessment: 'identifying preventive and protective measures by evaluating the risk(s) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable'
- Objectives of risk assessment; prevention of workplace accidents
- Risk assessors:
 - composition of risk assessment team
 - competence
- Criteria for a 'suitable and sufficient' risk assessment
- Identification of hazards
 - sources and form of harm; task analysis, legislation, manufacturers' information, incident data
- Identifying population at risk:
 - employees, operators, maintenance staff, cleaners, contractors, visitors, public, etc
- Evaluating risk and adequacy of current controls:
 - likelihood of harm and probable severity
 - risk rating
 - apply the general hierarchy of control with reference to OHSAS 18001 (links with 3.6)
 - application based on prioritisation of risk
 - use of guidance; sources and examples of legislation
 - applying controls to specified hazards
 - residual risk; acceptable / tolerable risk levels
 - distinction between priorities and timescales
- Recording significant findings:
 - format; information to be recorded
- Reviewing: reasons for review (eg incidents, process/equipment/staff/legislative changes; passage of time)
- Special case applications to young persons, expectant and nursing mothers also consideration of disabled workers and lone workers.

3.6 General principles of prevention in relation to risk reduction measures

- General principles of prevention with reference to Regulation 4 and Schedule 1 of the Management of Health and Safety at Work Regulations 1999:
 - avoiding risks
 - evaluating the risks which cannot be avoided
 - combating the risk at source
 - adapting the work to the individual especially with regards to design of workplace, the choice of work equipment, and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health;
 - adapting to technical progress
 - replacing the dangerous by the non-dangerous or the less dangerous
 - developing an overall coherent prevention policy which covers technology, organisation of work, working conditions, social relationships and the influence of factors relating to the working environment;
 - giving collective protective measures priority over individual protective measures; and
 - giving appropriate instructions to employees.

3.7 Sources of health and safety information

- Internal to the organisation (eg, accident/ill health/absence records, inspection, audit and investigation reports, maintenance records)
- External to the organisation (eg, manufacturers' data, legislation, EU (European Union) HSE (Health and Safety Executive) and its publications, trade associations; International, European and British Standards, ILO (International Labour Organisation) and other authoritative texts, IT sources.

3.8 Factors that should be considered when developing and implementing a safe system of work for general work activities

- Employer's duty to provide safe systems of work
- Role of competent persons in the development of safe systems
- Importance of employee involvement in the development of safe systems
- Importance and relevance of written procedures
- The distinction between technical, procedural and behavioural controls
- Development of a safe system of work
- Analysing tasks, identifying hazards and assessing risks
- Introducing controls and formulating procedures
- Instruction and training in the operation of the system
- Monitoring the system

- Definition of and specific examples of safe systems of work for:
 - confined spaces
 - lone working (including travelling away from the employee's usual place of work)

3.9 Role and function of a permit-to-work system

- Meaning of a permit-to-work system
- Role and function
- Operation and application of a permit-to-work system
- Circumstances in which a permit to work system may be appropriate, with reference to: hot work, work on electrical systems, machinery maintenance, confined spaces, work at height.

3.10 Emergency procedures and the arrangements for contacting emergency services

- Importance of developing emergency procedures
- What needs to be included in an emergency procedure
 - why an emergency procedure is required
 - size and nature of potential emergencies and the consequences if they occur
 - procedures for raising the alarm
 - action of the employees on site
 - dealing with the media
 - arrangements for contacting emergency and rescue services
- Importance of training and testing emergency procedures.

3.11 Requirements for, and effective provision of, first-aid in the workplace

- First-aid requirements
- Role, training and number of first-aiders and appointed persons
- Requirements for first-aid boxes
- Coverage in relation to shift work and geographical location.

Recommended tuition time not less than 17 hours

Element 4: Health and safety management systems – Check

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 4.1 Outline the principles, purpose and role of active and reactive monitoring
- 4.2 Explain the purpose of, and procedures for, investigating incidents (accidents, cases of work-related ill-health and other occurrences)
- 4.3 Describe the legal and organisational requirements for recording and reporting incidents

Content

4.1 Active and reactive monitoring

- Active monitoring procedures including the monitoring of performance standards and the systematic inspection of plant and premises
- Role of safety inspections, sampling, surveys and tours and their roles within a monitoring regime
- Factors governing frequency and type of inspection; competence and objectivity of inspector; use of checklists; allocation of responsibilities and priorities for action
- Effective report writing: style, structure, content, emphasis, persuasiveness etc
- Reactive monitoring measures including data on accidents, dangerous occurrences, near misses, ill-health, complaints by workforce and enforcement action.

4.2 Investigating incidents

- Function of incident investigation as a reactive monitoring measure
- Distinction between different types of incident: ill-health, injury accident, dangerous occurrence, near-miss, damage-only; typical ratios of incident outcomes and their relevance in terms of the proportion of non-injury events; utility and limitations of accident ratios in accident prevention (Bird's triangle)
 - Basic incident investigation procedures
 - Interviews, plans, photographs, relevant records, checklists
 - Immediate causes (unsafe acts and conditions) and root causes (management systems failures)
 - Remedial actions.

4.3 Recording and reporting incidents

- Typical examples of major injuries, diseases and dangerous occurrences
- Statutory requirements for recording and reporting incidents
- Additional organisational requirements for recording and reporting incidents
- Accident Book
- The requirement for recording and procedure for reporting fatalities, specified injuries, 'over 3 or 7-day injuries', disease and dangerous occurrences
- Internal systems for collecting, analysing and communicating data
- Collection of relevant information and its availability in a civil claim
- Lessons learnt.

Recommended tuition time not less than 5 hours

Element 5: Health and safety management systems – Act

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 5.1 Explain the purpose of, and procedures, for health and safety auditing
- 5.2 Explain the purpose of, and procedures for, regular reviews of health and safety performance.

Content

5.1 Health and safety auditing

- Meaning of the term 'health and safety audit'
- Scope and purpose of auditing health and safety management systems; distinction between audits and inspections
- Pre-audit preparations, information gathering, notifications and interviews, selection of staff, competence of auditors, time, resources
- Responsibility for audits
- Advantages and disadvantages of external and internal audits
- Actions taken following audit (eg, correcting nonconformities).

5.2 Review of health and safety performance

- Purpose of reviewing health and safety performance
- Who should take part in review
- Review at planned intervals
- Assessing opportunities for improvement and the need for change
- Review to consider:
 - evaluations of compliance with applicable legal and organisational requirements
 - accident and incident data, corrective and preventive actions
 - inspections, surveys, tours and sampling
 - absences and sickness
 - quality assurance reports
 - audits
 - monitoring data/records/reports
 - external communications and complaints
 - results of participation and consultation
 - objectives met
 - actions from previous management reviews
 - legal / good practice developments

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- Maintenance of records of management review
- Reporting on health and safety performance
- Feeding into action and development plans as part of continuous improvement
- Role of Boards, Chief Executive/Managing Director and Senior Managers.

Recommended tuition time not less than 4 hours

Unit NGC1: Tutor References

Statutory instruments

Legislation	Country	Element/s
Confined Space Regulations 1997	UK / Great Britain	3
Construction (Design and Management) Regulations 2015	UK / Great Britain	1
Corporate Manslaughter and Corporate Homicide Act 2007	UK / Great Britain	1, 3
Deregulation Act 2015 (Section 1)	UK / Great Britain	1
Employers' Health and Safety Policy Statements (Exceptions) Regulations 1975	UK / Great Britain	2
Employers' Liability (Compulsory Insurance) Regulations 1998 (as amended)	UK / Great Britain	1
Enterprise and Regulatory Reform Act 2013 (Section 69)	UK / Great Britain	1
Health and Safety at Work etc Act 1974	UK / Great Britain	1, 2, 3
Health and Safety at Work etc Act 1974 (Civil Liability) (Exceptions) Regulations 2013	UK / Great Britain	1
Health and Safety at Work etc Act 1974 (General Duties of Self-Employed Persons) (Prescribed Undertakings) Regulations 2015	UK / Great Britain	1
Health and Safety (Consultation with Employees) Regulations 1996	UK / Great Britain	3
Health and Safety (Fees) Regulations 2012	UK / Great Britain	1
Health and Safety (First Aid) Regulations 1981 (as amended)	UK / Great Britain	3
Health and Safety Information for Employees Regulations 1989 (as amended)	UK / Great Britain	3
Interpretation Act 1978	UK / Great Britain	1
Legal Aid, Sentencing and Punishment of Offenders Act 2012	UK / Great Britain	1
Legal Aid, Sentencing and Punishment of Offenders Act 2012 (Fines on Summary Conviction) Regulations 2015	UK / Great Britain	1
Management of Health and Safety at Work Regulations 1999 (as amended)	UK / Great Britain	1 - 5
Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013	UK / Great Britain	4
Safety Representatives and Safety Committee Regulations 1977	UK / Great Britain	3
Social Action, Responsibility and Heroism Act 2015	UK / Great Britain	1
Confined Space Regulations (Northern Ireland) 1999	Northern Ireland	3
Construction (Design and Management) Regulations (Northern Ireland) 2016	Northern Ireland	1
Employers' Liability (Compulsory Insurance) Regulations (Northern Ireland) 1999	Northern Ireland	1

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Legislation	Country	Element/s
Health and Safety (Consultation with Employees) Regulations (Northern Ireland) 1996	Northern Ireland	3
Health and Safety (Fees) Regulations (Northern Ireland) 2012	Northern Ireland	1
Interpretation Act (Northern Ireland) 1954	Northern Ireland	1
Management of Health and Safety at Work Regulations (Northern Ireland) 2000 (as amended)	Northern Ireland	1 – 5
Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (Northern Ireland) 1997 (as amended)	Northern Ireland	4

Other relevant references

Reference title	Reference detail eg ISBN number	Element/s
Bird F E, 1974. Management guide to Loss Control, Institute Press, Atlanta, Georgia, USA		3
Consulting workers on health and safety, Safety Representatives and Safety Committee Regulations 1977 (as amended) and Health and Safety (Consultation with Employees) Regulations 1996 (as amended), L146	HSE Books, ISBN: 978-0-7176-6461-0 Link to L146	3
Emergency procedures, HSE website guidance	http://www.hse.gov.uk/toolbox/managing/emergency.htm	3
First aid at work (third edition), L74	HSE Books, ISBN: 978-0-7176-6560-0 Link to L74	3
Guidance on permit-to-work systems. A guide for the petroleum, chemical and allied industries, HSG250	HSE Books, ISBN: 978-0-7176-2943-5 Link to HSG250	3
Guidance on the application of Fees for Intervention (FFI), HSE47	HSE Books, ISBN: 978-0-7176-6456-6 Link to HSE47	1
Health and safety made simple, INDG449	HSE Books, Link to INDG449	2
HSE's Managing for health and safety	Managing for health and safety	1 - 5
HSE's The Health and Safety Toolbox: how to control risks at work	The health and safety toolbox	1 - 5
Human factors and ergonomics	http://www.hse.gov.uk/humanfactors/	3
Human factors: Permit to work systems	Link to human factors/PTW	3
Investigating Incident and Accidents at Work, HSG245	HSE Books, Link to HSG245	4
Leading health and safety at work, INDG417	HSE Books, Link to INDG417	1, 3
Managing for health and safety, HSG65 (third edition)	HSE Books, ISBN: 978-0-7176-6456-6 Link to HSG65	1 - 5
Managing Health and Safety in Construction, Construction (Design and Management) Regulations 2015, Guidance on regulations, L153	HSE Books, ISBN: 978-0-7176-6623-3 Link to L153	1
New and expectant mothers, HSE website guidance	http://www.hse.gov.uk/mothers/	3

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Reference title	Reference detail eg ISBN number	Element/s
Occupational health and safety management systems – requirements (OHSAS 18000 series)	OHSAS 18001 ISBN: 978-0-5805-9404-5 OHSAS 18002 ISBN: 978-0-5806-2686-9	1 - 5
Plan, Do, Check, Act, An introduction to managing for health and safety, INDG275	HSE Books, Link to INDG275	2
Reducing error and influencing behaviour, HSG48	HSE Books, ISBN: 978-0-7176-2452-2 Link to HSG48	3
Reporting accidents and incidents at work, INDG453	HSE Books, Link to INDG453	4
Risk assessment, A brief guide to controlling risks in the workplace, INDG163	HSE Books, Link to INDG163	3
Safe work in confined spaces, L101	HSE Books, ISBN: 978-0-71766233-3 Link to L101	3
Sentencing Council, Health and Safety Offences, Corporate Manslaughter and Food Safety and Hygiene Offences, Definitive Guideline	Sentencing Council Link to Definitive Guideline	1
The health and safety toolbox, How to control risks at work, HSG268	HSE Books, ISBN: 978-0-7176-6587-7 Link to HSG268	1 - 5
The Construction (Design and Management) Regulations 2015, Industry guidance for Clients	Produced by CONIAC, published by CITB, ISBN: 978-1-85751-389-9 Link to Client Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Principal Designers	Produced by CONIAC, published by CITB, ISBN 978-1-85751-390-5 Link to Principal Designers Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Designers	Produced by CONIAC, published by CITB, ISBN 978-1-85751-393-6 Link to Designer Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Principal Contractors	Produced by CONIAC, published by CITB, ISBN 978-1-85751-393-6 Link to Principal Contractor Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Contractors	Produced by CONIAC, published by CITB, ISBN: 978-1-85751-391-2 Link to Contractor Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Workers	Produced by CONIAC, published by CITB, ISBN 978-1-85751-394-3 Link to Worker Guidance	1
Young people and work experience, INDG364	HSE Books, Link to INDG364	3

4.1 Unit NCC1: Managing and controlling hazards in construction activities

Element 1: Construction law and management

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 1.1 Identify the scope, definition and particular issues relating to construction activities
- 1.2 Outline the legal, moral and financial consequences of failing to manage health and safety within the construction industry
- 1.3 Outline the scope and application of the Construction (Design and Management) Regulations 2015
- 1.4 Identify the nature and main sources of external construction health and safety information.

Content

1.1 Scope, definition and particular issues relating to construction activities

- Types of work:
 - building works
 - renovation
 - alteration
 - maintenance of existing premises (occupied or unoccupied)
 - civil engineering
 - decommissioning
 - demolition
 - dismantling
- Range of activities:
 - site clearance
 - excavation
 - loading, unloading and storage of materials
 - site movements
 - fabrication
 - decoration
 - cleaning
 - installation, removal and maintenance of services (electricity, water, gas)
 - landscaping
- Meaning of 'excavation' (eg, earthwork, trench work, shaft, tunnel or underground working)
- Meaning of 'structure' (eg, any building, timber, masonry, metal or reinforced concrete structure, caisson, mast, tower)
- Particular construction issues relating to the:
 - transitory nature of workers

- temporary nature of construction activities and the constantly changing workplace
- time pressures from clients and principal contractors
- weather conditions
- levels of numeracy and literacy of workers
- non-English speaking workers.

1.2 The legal, moral and financial consequences of failing to manage health and safety within the construction industry

- The size of the construction health and safety 'problem' in terms of numbers of work-related fatalities, injuries and incidence of ill-health.

1.3 Scope and application of the Construction (Design and Management) Regulations 2015

- The particular duties under the Construction (Design and Management) Regulations 2015 of clients, designers, principal designer, principal contractors and contractors in relation to:
 - appointment and competence required of relevant parties
 - notification of projects (including the requirements for both CDM and non-CDM projects and for displaying the particulars on site)
 - preparation of pre-construction information (including the purpose and requirements)
 - the construction phase plan (including the purpose and typical content of the plan)
 - provision of appropriate and relevant information to all parties
 - preparation of the health and safety file (including the purpose and typical content of the file)
 - duties of domestic clients.

1.4 Sources of external construction health and safety information

- External to the organisation including:
 - manufacturers' data
 - legislation
 - HSE publications
 - trade organisations (including Construction Skills, CIRIA)
 - International/ European/ British Standards
 - IT sources
 - professional bodies (including Institute of Civil Engineers, Chartered Institute of Building, Civil Engineering Contractors Association (CECA), Major Contractors Group (MCG), Association of Project Supervisors, Institution of Occupational Safety and Health (IOSH) and International Institute for Risk and Safety Management (IIRSM).

Recommended tuition time not less than 5 hours

Element 2: Construction site - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 2.1 Explain the factors which should be considered when carrying out an initial assessment of a site to identify significant hazards and their risks
- 2.2 Explain the appropriate general site control measures needed in setting up and organising a site
- 2.3 Identify the health, welfare and work environment requirements on construction sites
- 2.4 Explain the hazards and appropriate control measures for violence at work
- 2.5 Explain the hazards and appropriate control measures for substance misuse at work
- 2.6 Explain the hazards associated with the movement of people on construction sites and the control measures for pedestrians.

Content

2.1 Initial site assessment

- Previous/current use (including green/brown field site and existing occupied/unoccupied premises)
- History of site (including likelihood of asbestos, other contaminants and underground voids)
- Area of site, restrictions
- Topography and ground conditions
- Other (non-construction) activities on site
- Nature of surroundings, proximity and features of roads, footpaths, railways, waterways, residential/commercial/industrial properties, schools, etc
- Means of access
- Presence of overhead and buried services.

2.2 Appropriate general site control measures

- Site planning (including arrangements for site access, roadways, storage, loading and unloading, offices, lighting and signs, remediation works and provision of utility services)
- Site preparation for specialist activities (including lifting, piling and steelworks)
- Site security and means of protecting the public, including trespass by children (perimeter fencing, signs, safe viewing points, means of securing plant, chemicals, means of controlling dangers such as mud on public highways)

- Arrangements with client / occupier of premises (including site rules, co-operation, shared facilities, eg, first aid and protection of the client's employees)
- Arrangements for site inductions
- Working in occupied premises.

2.3 Health, welfare and work environment requirements

- Health and welfare provisions, both temporary and fixed: supply of drinking water, washing facilities, sanitary conveniences, accommodation for clothing, rest and eating facilities, seating, ventilation, heating and lighting; facilities for first aid
- The effects of exposure to sunlight and inclement weather and preventive measures
- The effects of extreme temperature and preventative measures (hot and cold).

2.4 Violence at work

- Hazards relating to violence at work (both between workers and third parties)
- Control measures to reduce risks from violence at work.

2.5 Substance misuse at work

- Hazards of alcohol and drugs (prescribed and controlled) at work
- Control measures to reduce risks from misuse of alcohol and drugs at work.

2.6 Safe movement of people on construction sites

- Hazards to pedestrians:
 - slips, trips and falls on the same level
 - falls from a height
 - collisions with moving vehicles; striking by moving, flying or falling objects
 - striking against fixed or stationary objects, including treading on sharp items
 - hazards to the general public caused by construction activities, including construction activities on public highways
 - conditions and environments in which each hazard may arise.
- Control measures for pedestrian hazards:
 - risk assessment
 - slip resistant surfaces
 - spillage control and drainage
 - designated walkways
 - fencing and guarding
 - use of signs and personal protective equipment (in particular, head and foot protection)
 - information
 - instruction
 - training and supervision
- Maintenance of a safe workplace:
 - cleaning and housekeeping requirements
 - access and egress

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- environmental considerations (heating, lighting, noise and dust), including maintenance activities
- The particular measures needed to protect site personnel and members of the public while working on public highways, including signing, lighting and guarding.

Recommended tuition time not less than 7 hours

Element 3: Vehicle and plant movement - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 3.1 Explain the hazards and control measures for the safe movement of vehicles/plant within a construction environment, including when using public highways as a workplace
- 3.2 Outline the factors associated with driving at work that increase the risk of an incident and the control measures to reduce work-related driving risks.

Content

3.1 Safe movement of vehicles and plant within a construction environment

- Hazards from workplace vehicles and plant:
 - typical hazards leading to loss of control; overturning of vehicles
 - collisions with other vehicles/plant, pedestrians and fixed objects
 - non-movement related hazards eg loading, unloading and securing loads, sheeting, coupling, vehicle maintenance work.
- Control measures to reduce the risk from the movement of vehicles and plant:
 - suitability and sufficiency of traffic routes
 - management of vehicle movements
 - environmental considerations (visibility, gradients, changes of level, surface conditions)
 - maintenance of vehicles
 - driver protection and restraint systems
 - segregating of pedestrians and vehicles and measures to be taken when segregation is not practicable
 - protective measures for people and structures (barriers, marking signs, warnings of vehicle approach and reversing)
 - site rules
 - selection and training of drivers
 - management systems for assuring driver competence including local codes of practice.

3.2 Driving at work

- Extent of work-related road injuries
- Factors associated with driving at work that increase the risk of being involved in a road traffic incident (distance, driving hours, work schedules, stress due to traffic and weather conditions, etc).

- Managing work-related road safety:
 - policy covers work-related road safety
 - systems to manage work-related road safety
 - monitoring performance to ensure policy is effective, eg , collection of information, reporting of work-related road incidents by workers
 - organisation and structure (to allow co-operation across departments with different responsibilities for work-related road safety)
 - legal responsibilities of individuals on public roads.
- Risk assessment:
 - the driver (competency, fitness and health, training)
 - the vehicle (suitability, condition, safety equipment, safety critical information, ergonomic considerations)
 - the journey (routes, scheduling, sufficient time, weather conditions)
- Control measures to reduce work-related driving risks (including the avoidance of excessive working hours).

Recommended tuition time not less than 5 hours

Element 4: Musculoskeletal hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 4.1 Explain work processes and practices that may contribute to musculoskeletal disorders, work-related upper limb disorders and the appropriate control measures
- 4.2 Explain the hazards and control measures which should be considered when assessing risks from manual handling activities
- 4.3 Explain the hazards and control measures to reduce the risk in the use of lifting and moving equipment with specific reference to manual and mechanically operated load moving equipment.

Content

4.1 Musculoskeletal disorders and work-related upper limb disorders

- Meaning of musculoskeletal disorders (MSDs) and work-related upper limb disorders (WRULDs)
- Examples of repetitive construction activities that can cause MSDs and WRULDs such as digging, kerb laying, movement and fixing of plasterboard, placement and finishing of concrete slabs bricklaying, erecting/dismantling scaffolds, use of display screen equipment (eg architects operating CAD/admin staff)
- The ill-health effects of poorly designed tasks and workstations
- The factors contributing to ill-health conditions: task (including repetitive, strenuous tasks); environment (including lighting, glare); equipment (including user requirements, adjustability)
- Appropriate control measures including matching the workplace to individual needs of workers.

4.2 Manual handling hazards and control measures

- Common types of manual handling injury
- Assessment of manual handling risks by considering the task, the load, the individual and the working environment
- Means of avoiding or minimising the risks from manual handling construction activities with reference to the task, load, individual and working environment, eg, design, automation/mechanisation
- Efficient movement principles for manually lifting loads to reduce risk of MSDs and WRULDs disorders due to lifting, poor posture and repetitive or awkward movements.

4.3 Lifting and moving equipment

- Hazards and control measures for mechanically operated load handling equipment (fork-lift trucks (including rough terrain), telehandlers, dumper trucks, excavators, lifts and mobile and tower cranes (including lifting accessories))
- Hazards and control measures for common types of manually operated load handling aids and equipment: (wheelbarrows, sack trucks, pallet trucks), hoists (including lifting accessories)
- Requirements for lifting operations:
 - strong, stable and suitable equipment
 - positioned and installed correctly
 - visibly marked i.e. safe working load
 - ensure lifting operations are planned, supervised and carried out in a safe manner by competent persons
 - special requirements for lifting equipment used for lifting people
- Requirements for regular visual inspection and statutory requirements for the thorough examination and inspection of lifting equipment.

Recommended tuition time not less than 7 hours

Element 5: Work equipment - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 5.1 Outline general requirements for work equipment
- 5.2 Outline the hazards and control measures for hand-held tools, both powered and non-powered
- 5.3 Describe the main mechanical and non-mechanical hazards of machinery
- 5.4 Explain the main control measures for reducing risk from common construction machinery hazards.

Content

5.1 General requirements for work equipment

- Scope of work equipment including hand tools, power tools and machinery
- Suitability as it relates to provision of equipment; including the requirement for CE (Conformité Européenne) marking
- Requirement to restrict the use and maintenance of equipment with specific risks
- Extent of information, instruction and training to be provided in relation to specific risks and persons at risk (including users, maintenance staff and managers)
- Requirement for equipment to be maintained and maintenance to be conducted safely
- Requirements for regular visual inspection and statutory requirements for the thorough examination and inspection of work equipment
- Importance of operation and emergency controls, stability, lighting, markings and warnings, clear unobstructed workspace
- Responsibilities of users.

5.2 Hand-held tools

- Hazards and misuse of hand-held tools (non-powered); appropriate control measures for safe use, in particular their condition and suitability for purpose
- Hazards of common portable power tools used in construction (including: pneumatic drill/chisel, electric drill, disc cutter/cut off saw, sander, cartridge and pneumatic nail guns, chainsaw); appropriate control measures for safe use, in particular their condition and suitability for purpose
- Suitability for location in which they are used (including flammable atmospheres); procedures for defective equipment.

5.3 Machinery hazards

- Main mechanical and other hazards as identified in 'BS EN ISO 12100 -1 Safety of Machinery' and how operators may be harmed.
- Hazards presented by a range of equipment, including:
 - office machinery (photocopier, document shredder),
 - workshop machinery (including bench top grinder, pedestal drill, bench mounted circular saw, hand fed power planer, spindle moulding machine)
 - site machinery (including compressor, cement mixer, plate compactor, ground consolidation equipment, circular saw, road-marking equipment, electrical generators).

5.4 Control measures for machinery hazards

- The principles of operation, merits and limitations of the following methods of protection:
 - fixed guards
 - interlocked guards
 - trip devices
 - adjustable/self-adjusting guards
 - two hand controls
 - hold to run
 - emergency stop controls
 - personal protective equipment
 - information
 - instruction
 - training and supervision.
- Application of the above methods to a range of equipment listed at 5.3.
- Basic requirements for guards and safety devices: compatible with process; adequate strength; maintained; allow maintenance without removal; not increase risk or restrict view; not easily by-passed.

Recommended tuition time not less than 6 hours

Element 6: Electrical safety

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 6.1 Outline the principles, hazards and risks associated with the use of electricity in the workplace
- 6.2 Outline the control measures that should be taken when working with electrical systems or using electrical equipment
- 6.3 Outline the control measures to be taken when working near or underneath overhead power lines.

Content

6.1 Hazards and risks associated with the use of electricity in the workplace

- Principles of electricity:
 - basic circuitry for current to flow: relationship between voltage, current and resistance)
- Risks of electricity:
 - electric shock and its effect on the body; factors influencing severity: voltage, frequency (relevance on construction sites), duration, resistance, current path)
 - electrical burns (external and internal)
 - electrical fires (common causes – including static electricity)
 - workplace electrical equipment including portable items: conditions and practices likely to lead to accidents (unsuitable equipment; inadequate maintenance; use of defective apparatus)
 - secondary effects (including falls from heights)
- High risks associated with electricity:
 - use of poorly maintained electrical equipment
 - contact with underground power cables during excavation work
 - work on mains electricity supplies (230 volt)
 - work on live and dead electrical supplies
 - use of electrical equipment in wet and flammable/explosive environments.

6.2 Control measures

- Selection and suitability of equipment for use in construction activities:
 - protection of conductors
 - strength and capability of equipment
- Proper planning and installation of a progressively extending electrical system on site, permit-to-work procedures (including requirements of an electrical permit)
- Requirements for temporary electrical supplies

- Advantages and limitations of protective systems (fuses, earthing, isolation of supply, reduced low voltage systems, residual current devices, double insulation)
- Use of competent persons
- Use of safe systems of work (no live working unless no other option, isolation, locating buried services, protection against overhead cables)
- Inspection and maintenance strategies; user checks on portable electrical tools; formal inspection and tests; frequency of inspection and testing; records of inspection and testing; advantages and limitations of portable appliance testing (PAT)
- Emergency procedures following an electrical incident.

6.3 Control measures for working near overhead power lines

- Avoidance where possible
- Pre-planning and consultation with service provider to enable isolation / diversion of power supply
- Ground level barriers (including goal posts, correct clearance distances)
- Restriction of equipment/vehicle reach.

Recommended tuition time not less than 4 hours

Element 7: Fire safety

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 7.1 Describe the principles of fire initiation, classification and spread and the additional fire risks caused by construction activities in an existing workplace
- 7.2 Outline the principles of fire risk assessment
- 7.3 Outline the principles of fire prevention and the prevention of fire spread in construction workplaces
- 7.4 Identify the appropriate fire detection, fire alarm systems and fire-fighting equipment for construction activities
- 7.5 Outline the requirements for an adequate and properly maintained means of escape in the construction workplace
- 7.6 Outline the factors which should be considered when implementing a successful - evacuation of a construction workplace in the event of a fire.

Content

7.1 Principles of fire initiation, classification and spread and fire risks caused by construction activities

- Basic principles of fire:
 - fire triangle
 - sources of ignition
 - fuel and oxygen in a typical workplace
- Classification of fires (A, B, C, D and F)
- Basic principles of heat transmission and fire spread:
 - convection
 - conduction
 - radiation
 - direct burning
- Additional risks of fire within the construction industry and the consequences of fires during construction activities.

7.2 Fire risk assessment

- The requirement for a fire risk assessment and the matters to be addressed in carrying out the assessment (including construction work to existing premises and temporary site accommodation)
- Factors to be considered in carrying out the assessment
- Consideration of temporary workplaces and changes to workplaces
- Consideration to shared workplaces

- Site specific emergency plans.

7.3 Fire prevention and prevention of fire spread

- Control measures to minimise the risk of fire in a construction workplace:
 - elimination of, or reduction in, the use and storage of flammable and combustible materials
 - control of ignition sources (including welding and other hot work)
 - systems of work, permit-to-work procedures, requirements of a hot work permit
 - requirements for the safe storage, transport and use of liquefied petroleum and other gases in cylinders
 - good housekeeping.
- Requirements for the storage of small quantities of highly flammable (up to 50 litres) or flammable (up to 250 litres) liquids
- Structural measures to prevent the spread of fire and smoke: properties of common building material; protection of openings and voids
- Use of suitable electrical equipment in flammable atmospheres.

7.4 Fire detection, fire alarm and fire-fighting equipment

- Common fire detection and alarm systems
- Portable fire-fighting equipment: siting, maintenance, inspection and training requirements
- The advantages and limitations of the main extinguishing media: water, foam, dry powder, carbon dioxide.

7.5 Means of escape

- Means of escape:
 - travel distances
 - stairs
 - passageways
 - doors
 - emergency lighting
 - exit and directional signs
 - assembly points
 - need for continual review as construction activity progresses.

7.6 Evacuation of a construction workplace

- Emergency evacuation procedures:
 - appointment of fire marshals
 - fire instructions; training
 - fire drills
 - roll call
 - provisions for the infirm and disabled.

Recommended tuition time not less than 6 hours

Element 8: Chemical and biological health - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 8.1 Outline the forms of, and classification of, and the health risks from exposure to, hazardous substances
- 8.2 Explain the factors to be considered when undertaking an assessment of the health risks from substances encountered in construction workplaces
- 8.3 Explain the use and limitations of Workplace Exposure Limits including the purpose of long term and short term exposure limits
- 8.4 Outline control measures that should be used to reduce the risk of ill-health from exposure to hazardous substances
- 8.5 Outline the hazards, risks and controls associated with specific agents
- 8.6 Outline the basic requirements related to the safe handling and storage of waste on construction sites.

Content

8.1 Forms and classification of, and the health risks from exposure to, hazardous substances

- Forms of chemical agent (dusts, fibres, fumes, gases, mists, vapours, and liquids)
- Forms of biological agents (fungi, bacteria, viruses)
- Health hazards classifications: acute toxicity; skin corrosion/irritation; serious eye damage/eye irritation; respiratory or skin sensitisation; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single and repeated exposure); aspiration hazard
- Difference between acute and chronic health effects.

8.2 Assessment of health risks

- Routes of entry of hazardous substances into the body
- Factors to be taken into account when assessing health risks
- Sources of information, eg:
 - product labels
 - EH40 Workplace exposure limits
 - manufacturers' safety data sheets and responsibility for their provision
 - information to be included by supplier

- Limitations of information in assessing risks to health
- Role and limitations of hazardous substance monitoring.

8.3 Workplace Exposure Limits

- Purpose of Workplace Exposure Limits (WELs)
- Long term and short term limits
- Significance of time weighted averages
- Limitations of exposure limits
- Application of Workplace Exposure Limits
- Principle of reducing exposure levels at or below the workplace exposure limit and “as low as is reasonably practicable” for some substances.

8.4 Control measures

- Duty to prevent exposure or, where this is not reasonably practicable, adequately control it
- Ensuring the Workplace Exposure Limit is not exceeded
- Principles of Good Practice as regards to control of exposure:
 - minimisation of emission, release and spread of hazardous substances through design and operation of processes
 - take into account all relevant routes of exposure, inhalation, skin absorption and ingestion, when developing control measures
 - exposure control to be proportional to health risk
 - choose the most effective and reliable control options which minimise the escape and spread of substances hazardous to health
 - where adequate control of exposure cannot be achieved by other means, use of personal protective equipment in combination with other measures
 - regular checks and review of implemented control measures to confirm continued effectiveness
 - provision of information and training to those working with hazardous substances as to the risks and use of measures to minimise the risks
 - control measures not to increase overall risk to health and safety.
- Common measures used to implement the Principles of Good Practice above:
 - elimination or substitution of hazardous substances or form of substance
 - process changes
 - reduced time exposure
 - enclosure of hazards; segregation of process and people
 - local exhaust ventilation: general applications and principles of capture and removal of hazardous substances; components of a basic system and factors that may reduce its effectiveness; requirements for inspection
 - use and limitations of dilution ventilation
 - respiratory protective equipment: purpose, application and effectiveness; types of equipment and their suitability for different substances; selection, use and maintenance
 - other protective equipment and clothing (gloves, overalls, eye protection)
 - personal hygiene and protection regimes

- health surveillance and biological monitoring.
- Further controls of substances that can cause cancer, asthma or damage to genes that can be passed from one generation to another.

8.5 Specific agents

- Hazards, risks and controls associated with other specific agents:
 - blood borne viruses
 - organic solvents
 - carbon dioxide
 - nitrogen
 - isocyanates
 - lead
 - carbon monoxide
 - cement
 - legionella
 - leptospira
 - silica
 - fibres
 - hepatitis
 - tetanus
 - hydrogen sulphide
- The workplace circumstances in which they might be present
- Generation and control of dust on a construction site (including cement dust and wood dust)
- Health risks and controls associated with asbestos
- Duty to manage asbestos:
 - asbestos identification (types of survey and who can undertake them, where it can be located)
 - procedure for the discovery of asbestos during construction activity
 - requirements if persons are accidentally exposed to asbestos materials
 - requirements for removal (un-licensed, licensed, notification and plan of work)
 - respiratory equipment, protective clothing, training, air monitoring and medical surveillance
 - requirements for disposal (licensed carrier, notification, licensed disposal site).

8.6 Safe handling and storage of waste

- Basic environmental issues relating to safe handling and storage of waste (suitable personal protective equipment, separate storage of incompatible waste streams).

Recommended tuition time not less than 8 hours

Element 9: Physical and psychological health - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 9.1 Outline the health effects associated with exposure to noise and appropriate control measures
- 9.2 Outline the health effects associated with exposure to vibration and appropriate control measures
- 9.3 Outline the health effects associated with ionising and non-ionising radiation and the appropriate control measures
- 9.4 Outline the causes and effects of stress at work and appropriate control measures.

Content

9.1 Noise

- The physical and psychological effects on hearing of exposure to noise
- The meaning of terms commonly used in the measurement of sound; the decibel scale, dB(A) and dB(C)
- The need for assessment of exposure; lower and upper exposure action values; exposure limit values
- Basic noise control measures (isolation, absorption, insulation, damping and silencing); the purpose, application and limitations of personal hearing protection (types, selection, use, maintenance and attenuation factors)
- Role of monitoring and health surveillance.

9.2 Vibration

- The effects on the body of exposure to vibration, with particular reference to hand-arm vibration and whole body vibration
- The need for assessment of exposure, including limit and action values
- Basic vibration control measures including choice of equipment, maintenance, limiting exposure (including duration and magnitude, work schedules/rest periods, clothing to protect against cold)
- Role of monitoring and health surveillance.

9.3 Radiation

- The types of, and differences between, ionising radiation (including radon) and non-ionising radiation (including lasers and the effects of sunlight) and their health effects
- Typical occupational sources of ionising radiation and non-ionising radiation
- The basic means of controlling exposures to ionising and non-ionising radiation
- The basic means of controlling exposures to radon
- Basic radiation protection strategies including the role of the Radiation Protection Adviser
- The role of monitoring and health surveillance.

9.4 Stress

- Meaning of work-related stress
- Causes, effects and control measures (demand, control, support, relationships, role, change).

Recommended tuition time not less than 5 hours

Element 10: Working at height - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 10.1 Explain the hazards of working at height and outline the precautions necessary to control them
- 10.2 Explain safe working practices for access equipment and roof work
- 10.3 Outline control measures necessary to protect other persons not involved in the work at height
- 10.4 Outline control measures to reduce risk when working over or near to water.

Content

10.1 Working at height hazards and controls

- Examples of work activities involving a risk of injury from falling from height, and the significance of such injuries
- Basic hazards and factors affecting the risk from working at height (including good design, vertical distance, fragile roofs, roof-lights, voids, deterioration of materials, unprotected edges, unstable/poorly maintained access equipment, weather and falling materials)
- Methods of avoiding working at height
- Main precautions necessary to prevent falls and falling materials, including good design, proper planning and supervision of work, avoiding working in adverse weather conditions
- Emergency rescue plans
- Provision of equipment, training, instruction and other measures to minimise distance and consequences of a fall
- Requirements for head protection
- Inspection requirements for work equipment.

10.2 Safe working practices for access equipment and roof work

- Scaffolding
 - design features of independent tied, putlog, fan, cantilevered and mobile tower scaffolds
 - safety features (including sole-boards, base-plates, toe-boards, guardrails, boarding, brick guards, debris netting)
 - requirements for scaffold erectors
 - means of access
 - design of loading platforms
 - scaffold hoists (persons, materials)

- ensuring stability: effects of materials, weather, sheeting, etc; protection from impact of vehicles; inspection requirements
- mobile elevating work platforms
- Use of ladders, stepladders, trestles, staging platforms, and leading edge protection systems
- Other techniques:
 - boatswain's chair
 - cradles (including suspension from cranes)
 - rope access
- Fall arrest equipment:
 - harnesses
 - safety nets
 - soft landing systems
 - crash decks
 - emergency procedures (including rescue)
 - suspension trauma in the use of rope and harnesses
- Roof work:
 - means of access
 - edge and leading edge protection
 - crawling boards
 - fall arrest equipment.

10.3 Protection of others

- Demarcation, barriers, tunnels, signs
- Marking, lighting
- Sheeting, netting and fans
- Head protection.

10.4 Working over or near water

- Prevention of drowning, additional appropriate control measures (including buoyancy aids and safety boat).

Recommended tuition time not less than 7 hours

Element 11: Excavation work and confined spaces - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 11.1 Explain the hazards and risk assessment of excavation work
- 11.2 Explain the control measures for excavation work
- 11.3 Explain the hazards and risks associated with confined space working
- 11.4 Outline the control measures for confined space working.

Content

11.1 Excavation work hazards and assessment

- The hazards of work in and around excavations: buried services, falls of persons/equipment/ material into excavation, collapse of sides, collapse of adjacent structures, water ingress, use of cofferdams and caissons, contaminated ground, toxic and asphyxiating atmospheres, mechanical hazards
- Overhead hazards, including power lines
- Risk assessment: factors to consider (depth, soil type, type of work, use of mechanical equipment, proximity of roadways/structures/etc, presence of public, weather, etc).

11.2 Control measures for excavation work

- Controls:
 - identification / detection and marking of buried services; safe digging methods
 - methods of supporting excavations (eg steel sheets, support boxes)
 - means of access
 - crossing points
 - barriers, lighting and signs
 - safe storage of spoil
 - de-watering methods, including well points and sump points
 - positioning and routing of vehicles, plant and equipment
 - personal protective equipment
- Particular requirements for contaminated ground (soil testing, welfare facilities, health surveillance, etc)
- Inspection requirements for excavations and excavation support systems.

11.3 Confined space working hazards and risks

- Meaning of the term 'confined space'
- Typical confined spaces found during construction activities (eg, trenches, sewers, chambers, tanks, pits, cellars etc)
- Hazards and risks associated with confined spaces: exposure to toxic, explosive and oxygen deficient atmospheres; heat; water; free-flowing solids; restricted space.

11.4 Control measures for confined space working

- Precautions for safe entry:
 - avoidance where possible
 - risk assessment and planning
 - permit-to-work procedures; requirements of permit and lock off
 - training; use of competent persons
 - atmospheric testing
 - means of access
 - personal protective equipment
- Monitoring arrangements
- Emergency arrangements.

Recommended tuition time not less than 5 hours

Element 12: Demolition and deconstruction - hazards and risk control

Learning outcomes

On completion of this element, candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations. In particular they should be able to:

- 12.1 Identify the main hazards of demolition and deconstruction work
- 12.2 Outline the control measures for demolition and deconstruction work
- 12.3 Identify the purpose and scope of a pre-demolition/refurbishment survey
- 12.4 Outline the main control measures that a demolition/refurbishment method statement should include.

Content

12.1 Demolition and deconstruction hazards and risk

- The meaning of:
 - deconstruction
 - piecemeal demolition
 - deliberate controlled collapse
- The selection of the appropriate method
- Hazards relating to deconstruction and demolition:
 - premature collapse
 - falls and falling materials
 - plant, vehicles and other equipment overturning
 - manual handling
 - dust and fume
 - noise and vibration
 - existence of services (including gas, electricity and water)
 - hazardous substances
 - dilapidation.

12.2 Control measures

- Control measures for demolition work:
 - avoidance of premature collapse
 - protection from falls and falling material
 - siting and use of plant, vehicles and other equipment
 - dust and fume
 - noise and vibration
 - protection of the environment
 - competence of the workforce
 - pre-demolition investigation /survey
 - type of structure, method of construction, structural condition

- presence of cellars, etc
- identification of services
- presence of hazardous substances (particularly asbestos)
- waste management – on-site segregation and offsite disposal
- access and egress from the site
- proximity and condition of other structures, roadways, etc.

12.3 Purpose and scope of pre-demolition, deconstruction or refurbishment survey

- Duties of the property owner for carrying out a pre-demolition survey for both CDM notifiable and non-CDM notifiable projects
- Competent person to carry out investigations eg, structural engineers, asbestos surveyors, etc
- Identification of key structural elements including pre and post tensioned components
- Identification of location and type of services
- Identification, significance and extent of any dilapidation of the structure
- Review of drawings, structural calculations, health and safety file etc related to the structure
- Review of all structural alterations carried out on the structure in the past.

12.4 Control measures that a method statement should include

- Services:
 - isolations
 - temporary services
- Soft strip requirements
- Working at height access including scaffolding
- Protection of public, third parties and surrounding structures
- Emergency arrangements
- Waste management – on-site segregation and offsite disposal
- Competence of workforce
- Communications
- Asbestos
- Control measures for identified hazards
- Plant and equipment
- Access and egress from site
- Training and welfare arrangements
- Named responsible person
- Co-ordination of work activities.

Recommended tuition time not less than 3 hours

Unit NCC1: Tutor References

Statutory instruments

Legislation	Country	Element/s
EC Regulation No 1272/2008 Classification Labelling and Packaging of Substances and Mixtures (CLP) Link to CLP information	European Regulation	8
Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Link to GHS guidance	N/A	8
Regulation (EU) 2016/425 on personal protective equipment at work	European Regulation	2, 5, 8, 9, 10, 11, 12
UK / Great Britain		
Confined Spaces Regulations 1997	UK / Great Britain	11
Construction (Design and Management) Regulations 2015	UK / Great Britain	1, 2, 3, 10, 11, 12
Control of Artificial Optical Radiation at Work Regulations 2010	UK / Great Britain	9
Control of Electromagnetic Fields at Work Regulations (Northern Ireland) 2016	UK / Great Britain	9
Control of Asbestos Regulations 2012	UK / Great Britain	8
Control of Noise at Work Regulations 2005	UK / Great Britain	9
Control of Substances Hazardous to Health Regulations 2002 (as amended)	UK / Great Britain	8
Control of Vibration at Work Regulations 2005	UK / Great Britain	9
Dangerous Substances and Explosives Atmospheres Regulations 2002	UK / Great Britain	7
Deregulation Act 2015 (Section 6)	UK / Great Britain	10, 11, 12
Electrical Equipment (Safety) Regulations 2016	UK / Great Britain	5, 6
Electricity at Work Regulations 1989	UK / Great Britain	6
Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016	UK / Great Britain	5, 7
Health and Safety at Work etc Act 1974	UK / Great Britain	1
Health and Safety (Display Screen Equipment) Regulations 1992 (as amended)	UK / Great Britain	4
Health and Safety (First Aid) Regulations 1981 (as amended)	UK / Great Britain	2
Health and Safety (Safety Signs and Signals) Regulations 1996	UK / Great Britain	2, 3, 7, 10, 11
Ionising Radiations Regulations 1999	UK / Great Britain	9
Lifting Operations and Lifting Equipment Regulations 1998	UK / Great Britain	4
Management of Health and Safety at Work Regulations 1999	UK / Great Britain	1, 7
Manual Handling Operations Regulations 1992	UK / Great Britain	4

*The Guide to the NEBOSH National Certificate in Construction
Health and Safety (November 2014 specification)*

Legislation	Country	Element/s
New Roads and Street Works Act 1991	UK / Great Britain	3
Personal Protective Equipment at Work Regulations 1992	UK / Great Britain	2, 5, 8, 9, 10, 11, 12
Provision and Use of Work Equipment Regulations 1998	UK / Great Britain	2, 3, 4, 5, 9, 10, 12
Regulatory Reform (Fire Safety) Order 2005	UK / Great Britain	7
Road Traffic Act 1988 and 1991	UK / Great Britain	3
Supply of Machinery (Safety) Regulations 2008	UK / Great Britain	5
Work at Height Regulations 2005	UK / Great Britain	2, 3, 10, 11
Workplace (Health, Safety and Welfare) Regulations 1992	UK / Great Britain	2
Confined Space Regulations (Northern Ireland) 1999	Northern Ireland	11
Construction (Design and Management) Regulations (Northern Ireland) 2016	Northern Ireland	1, 2, 3, 10, 11, 12
Control of Asbestos Regulations (Northern Ireland) 2012	Northern Ireland	8
Control of Electromagnetic Fields at Work Regulations (Northern Ireland) 2016	Northern Ireland	9
Control of Noise at Work Regulations (Northern Ireland) 2006	Northern Ireland	9
Control of Substances Hazardous to Health Regulations (Northern Ireland) 2003 (as amended)	Northern Ireland	8
Control of Vibration at Work Regulations (Northern Ireland) 2005	Northern Ireland	9
Dangerous Substances and Explosive Atmosphere Regulations (Northern Ireland) 2003	Northern Ireland	7
Deregulation Act 2015 (Section 7)	Northern Ireland	10, 11, 12
Fire and Rescue Services (Northern) Order 2006	Northern Ireland	7
Fire Safety Regulations (Northern Ireland) 2010	Northern Ireland	7
Health and Safety (Safety Signs and Signals) Regulations (Northern Ireland) 1996	Northern Ireland	2, 3, 7, 8
Ionising Radiations Regulations (Northern Ireland) 2000	Northern Ireland	9
Health and Safety (Signs and Signals) Regulations (Northern Ireland) 1996	Northern Ireland	2, 3, 7, 10, 11
Lifting Operations and Lifting Equipment Regulations (Northern Ireland) 1999	Northern Ireland	4
Management of Health and Safety at Work Regulations (Northern Ireland) 2000 (as amended)	Northern Ireland	1, 7
Provision and Use of Work Equipment Regulations (Northern Ireland) 1993	Northern Ireland	2, 3, 4, 5, 9, 10, 12
Personal Protective Equipment at Work Regulations (Northern Ireland) 1993	Northern Ireland	2, 5, 8, 9, 10, 11, 12
Work at Height Regulations (Northern Ireland) 2005	Northern Ireland	2, 3, 10, 11
Workplace (Health, Safety and Welfare) Regulations (Northern Ireland) 1993	Northern Ireland	2

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Health and Safety (November 2014 specification)*

Legislation	Country	Element/s
Fire (Scotland) Act 2005	Scotland	7

Other relevant references

Reference title	Reference detail eg ISBN number	Element/s
A guide to workplace transport safety, third edition, 2014, HSG136	HSE Books, Link to HSG136	3
A Step by step guide to COSHH assessment, HSG97	HSE Books, ISBN: 978-0-7176-2785-1 Link to HSG97	8
Asbestos essentials task sheets	Link to Asbestos Essentials	8
Asbestos: The Survey Guide, HSG264	HSE Books, ISBN: 978-0-7176-6502-0 Link to HSG264	8
Avoiding danger from overhead power lines, Guidance Note GS6 (fourth edition)	HSE Books, Link to GS6	6
Avoiding danger from underground services HSG47 (Third edition, 2014)	HSE Books, ISBN 978-0-7176-6584-6 Link to HSG47	6, 11
Chainsaws at work	HSE Books, Link to INDG317	5
Code of practice for demolition	British Standards Institution, BS 6187:2011	12
Controlling Airborne Contaminants, HSG258	HSE Books, ISBN: 978-0-7176-6415-3 Link to HSG258	8
Controlling noise at work, L108	HSE Books, ISBN: 978-0-7176-6164-4 Link to L108	9
Control of substances hazardous to health, Approved Code of Practice and guidance, L5	HSE Books, ISBN 978-0-7176-6582-2 Link to L5	8
Dangerous Substances and Explosives Atmospheres Regulations 2002, Approved Code of Practice and guidance, L138	HSE Books, ISBN: 978-0-7176-6616-4 Link to L138	7
Driving at Work – Managing Work-Related Road Safety, INDG382	HSE Books Link to INDG382	2, 3
EH40/2005 Workplace exposure limits	HSE Books, ISBN: 978-0-7176-6446-7 Link to EH40	8
Electricity at Work – safe working practices, HSG85	HSE Books, ISBN 978-0-7176-6581-5 Link to HSG85	5
Electrical safety and you; a brief guide, INDG231	HSE Books, Link to INDG231	6
Electromagnetic fields at work, A guide to the Control of Electromagnetic Fields at Work Regulations, HSG281	HSE Books, Link to HSG281	9
Fire safety in construction work, HSG168	HSE Books, ISBN: 978-0-7176-6345-3 Link to HSG168	7
Hand-arm vibration, the Control of Vibration at Work Regulations 2005, Guidance on regulations, L140	HSE Books, ISBN: 978-0-7176-6125-1 Link to L140	9
Health and safety in construction, Guidance, HSG150	HSE Books, ISBN: 0-7176-6182-2 Link to HSG150	2, 3, 4, 6, 7, 10, 11, 12
Health and safety in roof work, HSG33	HSE Books, ISBN 978-0-7176-6257-3 Link to HSG33	10
Health and Safety (Safety Signs and Signals) Regulations 1996, Guidance on regulations, third edition, 2015, L64	HSE Books, ISBN: 978-0-7176-6359-0 Link to L64	2, 3, 10
HSE's The Health and Safety Toolbox: how to control risks at work	The health and safety toolbox	1, 2,
HSE Stress management standards	Link to stress management standards	9
Inspection and reports, HSE Construction Information Sheet No 47 (rev1)	Series Code, CIS47REV1 Link to CIS47	10

*The Guide to the NEBOSH National Certificate in Construction
Health and Safety (November 2014 specification)*

Reference title	Reference detail eg ISBN number	Element/s
Lighting at Work, HSG38, second edition 1997	HSE Books, ISBN: 978-0-7176-1232-1 Link to HSG38	3
Managing and work with Asbestos, Control of Asbestos Regulations 2012, Approved Code of Practice and guidance, L143	HSE Books, ISBN: 978-0-7176-6618-8 Link to L143	8
Managing asbestos in buildings, a brief guide, INDG223	HSE Books, Link to INDG223	8
Managing for health and safety, HSG65 (third edition)	HSE Books, ISBN: 978-0-7176-6456-6 Link to HSG65	1
Managing Health and Safety in Construction, Construction (Design and Management) Regulations 2015, Guidance on regulations, L153	HSE Books, ISBN: 978-0-7176-6623-3 Link to L153	1, 2
Managing skin exposure risks at work, HSG262	HSE Books, ISBN: 978-0-7176-6649-2 Link to HSG262	8
Managing the causes of work-related stress: A step-by-step approach using the Management Standards, HSG218	HSE Books, ISBN: 978-0-7176-6273-9 Link to HSG218	9
Maintaining portable and transportable electrical equipment, HSG107	HSE Books ISBN 9780717628056 Link to HSG107	5
Manual Handling, Manual Handling Operations Regulations 1992 (as amended), Guidance on Regulations, L23	HSE Books, ISBN: 978-0-7176-6653-9 Link to L23	4
Memorandum of guidance on the Electricity at Work Regulations 1989 HSR25	HSE Books, ISBN 978-0-7176-6228-9 Link to HSR25	6
Occupational Health Risk Management in Construction	IOSH/CONIAC/HSE Link to OH RM in Const	1, 2, 3, 10, 11, 12
Personal Protective Equipment at Work Regulations 1992 Guidance on Regulations, L25	HSE Books ISBN 978-0-7176-6139-3 Link to L25	2, 5, 8, 9, 10, 11, 12
Protecting the public: Your next move, HSG151	HSE Books, ISBN: 978-0-7176-6294-4 Link to HSG151	2, 3, 5, 6, 7, 8, 9, 10, 11, 12
Radon in the workplace	Link to Radon in the workplace	9
Respiratory protective equipment at work – A practical guide, HSG53	HSE Books, ISBN: 978-0-7176-6454-2 Link to HSG53	8
Rider-operated lift trucks. Operator training, Approved Code of Practice and Guidance, L117	HSE Books, ISBN: 978-0-7176-6441-2 Link to L117	4
Safety at Street Works and Roadworks, A Code of Practice, 2nd impression (with amendments June 2014,	Department for Transport, ISBN: 978-0-1155-3145-3 Link to Safety at Street Works	3
Safety of machinery, British Standards Institution	BS EN ISO 12100-1	5
Safe use and handling of flammable liquids, HSG140	HSE Books, Link to HSG140	7
Safe use of lifting equipment, Lifting Operations and Lifting Equipment Regulations 1998, ACoP and Guidance, L113	HSE Books, ISBN: 978-0-7176-1628-2 Link to L113	4
Safe use of woodworking machinery, L114	HSE Books, ISBN: 0-7176-1630-4 Link to L114	5
Safe Use of Work Equipment, Approved Code of Practice and guidance, L22	HSE Books, ISBN: 978-0-7176-6295-1 Link to L22	2, 3, 4, 5, 9, 10, 12

*The Guide to the NEBOSH National Certificate in Construction
Health and Safety (November 2014 specification)*

Reference title	Reference detail eg ISBN number	Element/s
Safe work in confined spaces, Approved Code of Practice and guidance, L101	HSE Books, ISBN: 978-0-7176-6622-5 Link to L101	11
Storage of flammable liquids in containers, HSG51	HSE Books, ISBN: 978-0-7176-1471-4 Link to HSG51	7
Storage of flammable liquids in tanks, HSG176	HSE Books, Link to HSG176	7
Safe use of vehicles on construction sites, HSG144	HSE Books, ISBN: 978-0-7176-6291-3 Link to HSG144	3
The health and safety toolbox, How to control risks at work, HSG268	HSE Books, ISBN: 978-0-7176-6587-7 Link to HSG268	2, 3
The Construction (Design and Management) Regulations 2015, Industry guidance for Clients	Produced by CONIAC, published by CITB, ISBN: 978-1-85751-389-9 Link to Client Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Principal Designers	Produced by CONIAC, published by CITB, ISBN 978-1-85751-390-5 Link to Principal Designers Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Designers	Produced by CONIAC, published by CITB, ISBN 978-1-85751-393-6 Link to Designer Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Principal Contractors	Produced by CONIAC, published by CITB, ISBN 978-1-85751-393-6 Link to Principal Contractor Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Contractors	Produced by CONIAC, published by CITB, ISBN: 978-1-85751-391-2 Link to Contractor Guidance	1
The Construction (Design and Management) Regulations 2015, Industry guidance for Workers	Produced by CONIAC, published by CITB, ISBN 978-1-85751-394-3 Link to Worker Guidance	1
The Electricity at Work Regulations 1989, Guidance on Regulations, HSR25	HSE Books, ISBN: 978-0-7176-6636-2 Link to HSR25	6
The Traffic Signs Manual (Chapter 8: The Traffic Safety Measures and Signs for Road Works and Temporary Situations)	Department for Transport, ISBN: 978-0-1155-0559-1 Link to Traffic Signs Manual	3
Whole-body vibration – Control of Vibration at Work Regulations 2005, L141	HSE Books, ISBN: 978-0-7176-6126-8 Link to L141	9
Working at Height, a Brief Guide, INDG401(rev1)	HSE Books Link to INDG401	2, 10
Work with display screen equipment: Health and Safety (Display Screen Equipment) Regulations 1992 as amended by the Health and Safety (Miscellaneous Amendments) Regulations 2002: Guidance on Regulations, L26	HSE Books ISBN: 978-0-7176-2582-6 Link to L26	4
Workplace health, safety and welfare, Workplace (Health, Safety and Welfare) Regulations 1992, ACOP, L24	HSE Books, ISBN: 978-0-7176-0413-5 Link to L24	2

4.2 Unit NCC2: Construction health and safety practical application

Learning outcomes

- Demonstrate the ability to apply knowledge of the unit NGC1 and NCC1 syllabus, by successful completion of a health and safety inspection of a construction workplace
- Complete a report to management regarding the inspection with recommendations.

Content

This unit contains no additional syllabus content. However, completion of study for unit NGC1 and NCC1 is recommended in order to undertake the practical application unit NCC2.

4.2.1 Purpose and aim

- To carry out, unaided, a safety inspection of a workplace, identifying the more common hazards, deciding whether they are adequately controlled and, where necessary, suggesting appropriate and cost effective control measures
- To prepare a report that persuasively urges management to take appropriate action, explaining why such action is needed (including reference to possible breaches of legislation) and identifying, with due consideration of reasonable practicability, the control measures that should be implemented.

This will require candidates to apply the knowledge and understanding gained from their studies of elements of Units NGC1 and NCC1 in a practical environment and to carry out an evaluation of information gathered during the inspection. The practical application may be submitted in the candidate's own handwriting or be word processed.

The submission must include:

- Completed observation sheets covering a number and range of hazards and good practice, identifying suitable control measures and timescales;
- An introduction and executive summary;
- Main findings of the completed inspection;
- Conclusions which summarise the main issues identified in the candidate's workplace;
- Completed recommendations table.

The time allowed to complete the assessment is not restricted but candidates should aim to complete the inspection and the report in two hours.

4.2.2 Marking

Practical applications will be marked by an internal assessor – a person proposed to NEBOSH by an accredited course provider and approved by NEBOSH. Internal assessors will be at least Grad IOSH of the Institution of Occupational Health and Safety or equivalent and working towards chartered membership, CMIOSH, (or similar).

A marking sheet will be completed by the internal assessor for each candidate and attached to the candidate's report. The total percentage mark for each candidate will be transferred to a results sheet and returned to NEBOSH by no later than 15 working days after the examination date of NCG1 and/or NCC1.

Candidates must achieve the pass standard (60%) in this unit in order to satisfy the criteria for the qualification.

4.2.3 Assessment location

The practical application must be carried out in the candidate's own workplace. Where the candidate does not have access to a suitable workplace, the accredited course provider should be consulted to help in making arrangements for the candidate to carry out the practical application at suitable premises. Providers seeking to run the practical unit in this way should contact NEBOSH for advice and approval.

Candidates do not require supervision when carrying out the practical application, but the candidate must sign a declaration that the practical application is their own work.

The candidates, employers and internal assessors should be aware that the status of the health and safety review and report undertaken to fulfil the requirements of unit NCC2, which is **for educational purposes only**. It *does not* constitute an assessment for the purposes of any legislation or regulations.

4.2.4 Assessment requirements

Assessment of the practical unit (NCC2) must normally take place within 10 working days of (before or after) the date of the NCG1 and/or NCC1 written papers (the 'date of the examination'). The results sheet completed by the accredited course provider must reach NEBOSH by no later than 15 working days after the date of the examination (Appendix 2).

Any practical application not submitted by this deadline will be declared at zero marks. The candidate will then be required to re-register (and pay the registration fee) at the next standard (or local) sitting date.

If a candidate is absent from the written papers because of illness corroborated by a doctor's note, but successfully completes the NCC2 unit within the 10 working day deadline, the result will stand. If a candidate is unable to complete the NCC2 unit under similar circumstances, NEBOSH may allow it to be taken at a later date beyond the normal 10 working day deadline.

4.2.5 Submission of completed work

The accredited course provider should advise the candidate of the latest date by which the completed practical application documents must be received by the accredited course provider for marking. It is the responsibility of the accredited course provider to ensure that the results of the practical application (unit NCC2) are available to NEBOSH by no later than **15 working days** after the date of the examination for NGC1 and/or NCC1 as appropriate.

Candidates planning to post their reports to the accredited course provider are reminded of the need to guard against loss in the post by sending their work by trackable delivery. Candidates are therefore advised to retain copies of both their completed proforma and final management report.

4.2.6 Further information

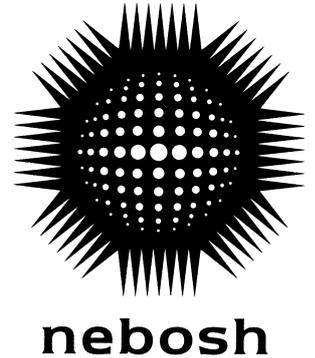
Further detailed information regarding the practical application unit including forms and mark scheme can be found in a separate guidance document for candidates and accredited course providers available from the NEBOSH website (www.nebosh.org.uk): *“Unit NCC2: Health and safety practical application: Guidance and information for accredited course providers and candidates”*.

5. Sample examination question papers

5.1 Unit NGC1: Management of health and safety

THE NATIONAL EXAMINATION BOARD IN
OCCUPATIONAL SAFETY AND HEALTH

UNIT NGC1: MANAGEMENT OF HEALTH AND SAFETY



For: NEBOSH National General Certificate in Occupational Health and Safety
NEBOSH National Certificate in Fire Safety and Risk Management
NEBOSH National Certificate in Construction Health and Safety

[DATE]

2 hours, 0930 to 1130

Answer both Section 1 and Section 2. Answer **ALL** questions.

The maximum marks for each question, or part of a question, are shown in brackets.

Start each answer on a new page.

Answers may be illustrated by sketches where appropriate.

This question paper must be returned to the invigilator after the examination.

SECTION 1

You are advised to spend about **half an hour** on this section, which contains **ONE** question.

- 1 An enforcement officer has visited an organisation and has found that a number of work activities have not had risk assessments completed.
- (a) **Describe** actions that the enforcement officer could take. (4)
 - (b) **Outline** key stages of a risk assessment **AND identify** issues that would need to be considered at **EACH** stage. (10)
 - (c) **Explain** criteria that could be used to prioritise any action required as a result of the completed risk assessment. (6)

SECTION 2

You are advised to spend about **one and a half hours** on this section, which contains **TEN** questions.

- 2 (a) **Identify** work-related illnesses that are reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013. (2)
- (b) **Outline** reasons why employers should keep records of occupational ill-health among employees. (6)
- 3 **Outline** *job* factors that could lead to poor health and safety behaviour in the workplace. (8)
- 4 (a) **Outline** functions of a permit-to-work *form*. (2)
- (b) **Outline** key elements of a permit-to-work *system*. (6)
- 5 **Identify** information that could be used to review an organisation's health and safety performance. (8)
- 6 (a) **Outline** legal requirements placed on employers to have a written health and safety policy. (2)
- (b) **Outline** circumstances that may require a health and safety policy to be revised. (6)
- 7 (a) **Identify** work activities that may present a particular risk to pregnant women at work **AND give** an example of **EACH** type of activity. (6)
- (b) **Outline** actions that an employer may take when a risk to a new or expectant mother cannot be avoided. (2)

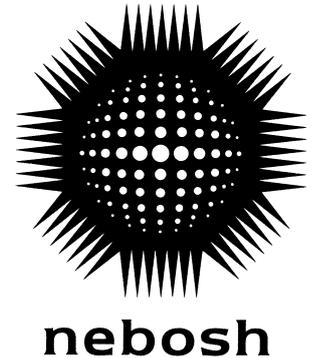
- 8** **Outline** the purpose and legal status of:
- (a) health and safety regulations; **(4)**
 - (b) Health and Safety Executive (HSE) approved codes of practice (ACOPs) **(4)**
- AND give** an example in **EACH** case.
- 9** When carrying out a health and safety inspection of a workplace:
- (a) **outline** the benefits of using a checklist; **(4)**
 - (b) **outline** the limitations of using a checklist. **(4)**
- 10** **Explain** why it is important to use a variety of methods to communicate health and safety information in the workplace. **(8)**
- 11** (a) **Outline** employee duties under the Management of Health and Safety at Work Regulations 1999. **(2)**
- (b) **Outline** employee responsibilities that should be included in the 'organisation' section of a health and safety policy. **(6)**

5.2 Unit NCC1: Managing and controlling hazards in construction activities

**THE NATIONAL EXAMINATION BOARD IN
OCCUPATIONAL SAFETY AND HEALTH**

**NEBOSH NATIONAL CERTIFICATE IN
CONSTRUCTION HEALTH AND SAFETY**

**UNIT NCC1: MANAGING AND CONTROLLING HAZARDS
IN CONSTRUCTION ACTIVITIES**



[DATE]

2 hours, 0930 to 1130

Answer both Section 1 and Section 2. Answer **ALL** questions.

The maximum marks for each question, or part of a question, are shown in brackets.

Start each question on a new page.

Answers may be illustrated by sketches where appropriate.

This question paper must be returned to the invigilator after the examination.

SECTION 1

You are advised to spend about **half an hour** on this section, which contains **ONE** question.

- 1** The provision of mains drainage to a village involves excavating to a depth of 2.5 metres along the main street.

Outline:

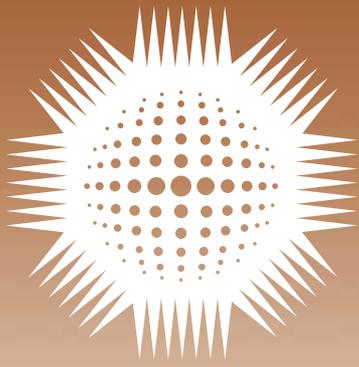
- (a) risks that may arise from this work; **(7)**
- (b) control measures that would be necessary to help reduce the risks. **(13)**

SECTION 2

You are advised to spend about **one and a half hours** on this section, which contains **TEN** questions.

- 2** **Identify** topics that should be included in a site induction for visitors. **(8)**
- 3** (a) **Identify** types of asbestos commonly found in building materials. **(3)**
 (b) **Outline** where asbestos is likely to be encountered in a building during renovation work. **(5)**
- 4** A steel-framed building is to be demolished.
Identify the main areas to be included in a demolition method statement. **(8)**
- 5** Electricity is one of the causes of fire on construction sites.
Outline ways in which such fires may be prevented. **(8)**
- 6** A lifting operation is to be carried out with the use of a crane hired for the purpose.
Outline the main items to be checked by the person appointed to have overall control of this operation. **(8)**
- 7** (a) **Identify** forms of chemical agents to which construction workers can be exposed. **(4)**
 (b) **Outline** the differences between the acute and chronic health effects from exposure to chemical agents. **(4)**
- 8** The Control of Noise at Work Regulations 2005 give noise exposure action values.
 (a) **Identify** the lower and the upper exposure action values. **(2)**
 (b) **Outline** control measures that an employer is required to take when employees are exposed to noise at or above an *upper* exposure action value. **(6)**

- 9 (a) **Identify** *flammable* gases contained in cylinders that might be found on a construction site. (2)
- (b) **Outline** precautions that should be taken in order to prevent fires and explosions during the transport and use of flammable gases contained in cylinders. (6)
- 10 A petrol-driven plate compactor is to be used to reinstate a small excavation on a highway.
- (a) **Outline** hazards to which workers could be exposed during the use of the plate compactor. (4)
- (b) **Outline** control measures to help reduce the risk to workers during the use of the plate compactor. (4)
- 11 **Outline** features of a well-designed and maintained traffic management system on a busy construction site. (8)



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