April - June 2015

# **Examiners' Report**

NEBOSH National General Certificate in Occupational Health and Safety (GC2)





# **Examiners' Report**

# UNIT GC2: CONTROLLING WORKPLACE HAZARDS



# **APRIL - JUNE 2015**

For: NEBOSH National General Certificate in Occupational Health and Safety NEBOSH International General Certificate in Occupational Health and Safety

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# Introduction

NEBOSH (The National Examination Board in Occupational Safety and Health) was formed in 1979 as an independent examining board and awarding body with charitable status. We offer a comprehensive range of globally-recognised, vocationally-related qualifications designed to meet the health, safety, environmental and risk management needs of all places of work in both the private and public sectors.

Courses leading to NEBOSH qualifications attract around 50,000 candidates annually and are offered by over 600 course providers, with examinations taken in over 120 countries around the world. Our qualifications are recognised by the relevant professional membership bodies including the Institution of Occupational Safety and Health (IOSH) and the International Institute of Risk and Safety Management (IIRSM).

NEBOSH is an awarding body that applies best practice setting, assessment and marking and applies to Scottish Qualifications Authority (SQA) regulatory requirements.

This report provides guidance for candidates which it is hoped will be useful to candidates and tutors in preparation for future examinations. It is intended to be constructive and informative and to promote better understanding of the syllabus content and the application of assessment criteria.

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### **General comments**

Many candidates are well prepared for this unit assessment and provide comprehensive and relevant answers in response to the demands of the question paper. This includes the ability to demonstrate understanding of knowledge by applying it to workplace situations.

There are other candidates, however, who appear to be unprepared for the unit assessment and who show both a lack of knowledge of the syllabus content and a lack of understanding of how key concepts should be applied to workplace situations.

This report has been prepared to provide feedback on standard date and on-demand GC2 examinations sat between April and June 2015.

Feedback is presented in these key areas; examination technique, command words and learning outcomes and is designed to assist candidates and course providers to prepare for future assessments in this unit.

Candidates and course providers will also benefit from use of the 'Guide to the NEBOSH National General Certificate in Occupational Health and Safety' and 'Guide to the NEBOSH International General Certificate in Occupational Health and Safety' which are available via the NEBOSH website. In particular, the guides set out in detail the syllabus content for GC2 and tutor reference documents for each Element.

Additional guidance on command words is provided in 'Guidance on command words used in learning outcomes and question papers' which is also available via the NEBOSH website.

Candidates and course providers should also make reference to the GC2 'Example question paper and Examiners' feedback on expected answers' which provides example questions and details Examiners' expectations and typical areas of underperformance.

# **Unit GC2**

# Controlling workplace hazards

## **Candidate performance**

This report covers all examinations, both standard and on-demand examination sittings during April to June 2015.

## **Learning outcomes**

Candidates performed well in these areas of the syllabus:

# 2.1 Explain the hazards and control measures for the safe movement of vehicles in the workplace

Moving vehicle accidents remain one of the most significant causes of fatality and serious injury in the workplace today. The hazardous nature of moving vehicles in the workplace demand that effective controls are implemented in order to reduce the risk of such accidents, supported by legislation, conventions, codes of practice and guidance, all of which are included in a course of study for the NEBOSH National General Certificate.

Questions that were answered well in this period related to the physical features of traffic routes in order to help reduce the risk to pedestrians. It is likely that most candidates would have some experience of vehicle movement and associated controls for pedestrians, either due to personal experience of public roads and highways, or due to having experience of vehicles in their workplace. Such experience clearly supports formal tuition from course providers, which was evident in the quality of answers provided.

Examiners reported a few problems in this area of the syllabus, the issue of question spotting or rote learning was evident as many answers not only included the physical features of traffic routes but also included reference to features of vehicles, protective clothing and management controls such as training and supervision, that would not be relevant to the features of a traffic route.

# 3.2 Explain the hazards and control measures which should be considered when assessing risks from manual handling activities

In this examination period there were several scenarios relating to manual handling activities. These included the need for restaurant workers to carry food orders to an upstairs dining area due to an out of service lift and the use of a trolley by hotel workers in order to carry cleaning equipment, materials and laundry between rooms. Although these involve distinctly different activities, candidates were able to apply the TILE mnemonic that is widely taught by course providers and is included in many available publications and guidance materials. Such an approach enabled candidates to arrange their answers in to factors associated with the Task, Load, Individual and working Environment that ensured that the breadth of answer was sufficient. Examiners reported that many candidates seemed to able to visualise the scenarios presented and that candidates could envisage what likely manual handling implications were involved. Together with the application of the taught mnemonic this enabled candidates to gain the breadth of marks available.

The following learning outcomes have been identified as being the most challenging area of the syllabus for candidates in this period:

#### 7.5 Outline the hazards, risks and controls associated with specific agents

This Element of the syllabus requires candidates to have a basic understanding of the health risks arising out of exposure to specific biological and chemical agents, together with appropriate control measures.

In this period, questions concerning exposure to asbestos and legionella bacteria were included on question papers. Generally, candidates had difficulty in both of these areas of the syllabus, demonstrating little knowledge of these subjects and gained few marks as a result. It is very possible that many candidates have not had experience of these specific agents and some candidates may be made aware of them for the first time in a course of study for the NEBOSH National General Certificate. Where it is obvious that candidates do not have background knowledge, course providers should pay more attention to effective tuition supported by comprehensive course materials to ensure candidates are sufficiently prepared for the examination. While candidates had little difficulty in identifying types of asbestos, knowledge of the duty to manage asbestos was very limited with over half of candidates not gaining any marks at all. Examiners have reported that a high number of candidates confused the legionella bacteria with the leptospira bacteria in their answers, in which case marks could not be awarded. Where candidates did recognise that legionella is a waterborne bacteria, very few candidates knew the conditions for legionella to grow in water sources, nor that exposure is due to the inhalation of airborne water droplets.

#### 4.4 Explain the main control measures for reducing risk from machinery hazards

In some workplace situations, the provision of guards to prevent access to dangerous parts of machinery is not always practicable and therefore some risk of contact with dangerous parts remains. In such circumstance it may be possible to make use of safety devices, such as two-handed controls, hold-to-run device, sensitive protective equipment (trip devices) and emergency stop controls, all of which are included in the learning outcomes of this element of the syllabus for the NEBOSH National General Certificate.

All of these devices were included as the subject of questions in this examination period and Examiners reported an almost universal lack of knowledge or misunderstanding of this aspect of machinery safety. In some cases, candidates chose to ignore the safety device given in the question and included references to fixed and interlocked guards that indicates a degree of both question spotting and lack of preparation for the examination. Too many candidates confused sensitive protective equipment (trip devices) with electrical protection such as residual current devices (RCDs) and fuses, again indicating a lack of understanding of machinery safety and the application of protective devices. Accidents involving moving parts of machinery remain a significant cause of serious injury and the measures necessary to protect workers should be well known by persons giving advice on health and safety matters. Questions in this area of the syllabus are consistently poorly answered and course providers should help ensure that their trainers have the necessary knowledge in order to effectively teach these subjects and that course materials to support tutorials contain sufficient detail and accuracy.

# 8.1 Outline the health effects associated with exposure to noise and appropriate control measures

The properties of sound, the effects of exposure to noise and noise control techniques are all included in this element of the syllabus and were all featured in questions in this examination period. The majority of candidates did indicate reasonable knowledge of health effects of noise exposure and gained adequate marks as a result. However, in some cases the depth of answers were weak and answers limited to 'deafness' or 'hearing loss' with insufficient outlines would not gain all of the marks available. Questions concerning the properties of sound and noise control techniques were not well answered with Examiners reporting below average marks in all cases and a significant number of candidates gaining no marks at all for these questions.

It is clear from previous examinations that when asked to provide details of noise control techniques, candidates do refer to absorption, insulation and isolation. However, as in this period, when asked to outline the principles of absorption, insulation, and isolation noise control techniques, candidates do not understand what these techniques are, how they are applied, nor how they achieve noise reduction. The same issue applies to questions relating to the properties of sound. Candidates appear to recognise terms such as 'frequency' and 'decibel' but in the majority of cases candidates cannot give the meaning of these terms. This may indicate that candidates revise a number of key words in order to get a breadth of answer, but do not have the depth of knowledge required to gain the marks available in such questions. Course providers should ensure that both the breadth and appropriate depth of the content of the syllabus is being taught in order that the ability to gain marks is not compromised.

## **Examination technique**

The following examination techniques were identified as the main areas of improvement for candidates:

#### Candidates misread/misinterpreted the question

Three quarters of Examiners reported that candidates in this period did not read one or more questions properly or that they misinterpreted the question, which is by far the most common cause of candidates not gaining the marks available.

NEBOSH questions are systematically and carefully prepared and are subject to a number of checks and balances prior to being authorised for use in question papers. Questions will include three main indicators as to what is required by the candidate in their answer. These indicators point to the required depth of answer (see command words below), the element of the syllabus being examined and the specific learning outcome. For example, a question could ask to 'identify the hazards associated with demolition work', or a question from the same element could ask to 'outline the control measures required during demolition work'. Candidates appear to focus solely on the object of the question (demolition) and do not pay sufficient attention to the subject (hazards or control measures in the examples given). In many cases, the candidate does start the answer correctly, for example giving hazards, but will appear to lose focus and the remaining answers deviates to examples of control measures. A further example of misreading the question relates to items of work equipment that may have similar names. This includes ladders and stepladders, mobile tower scaffolds and mobile elevated work platforms and bench top grinders and bench mounted circular saws. While there may be some common points where some marks may be gained, if the answer relates to the wrong item of work equipment, marks available will be limited. Such answers may also be due to candidates providing their responses based on previously set questions (or similar questions) from the same element of the syllabus that have been used as examination practice during a course of study.

Candidates are advised to allow sufficient time to read the question more than once in order to determine the key requirements prior to committing their answer to paper. Preparing a time plan before the examination will indicate how many minutes are available for each question and then part of this time allocation can be given to reading the question. Underling or highlighting key words can assist in keeping focused on the salient points and simple mind maps or answer plans can also be useful. Maps and plans should be kept simple so as not to use up too much examination time.

# Candidates did not respond effectively to the command word

As referred to above, a key indicator in an examination question will be the command word, which is always given in **bold** typeface. The learning outcomes in each element of the syllabus guide to the NEBOSH National General Certificate include the relevant command word that dictates the level of detail that should be covered in a course of study and the depth of answer that a candidate would be expected to provide in an answer to an examination question. Nearly a half of all Examiners in this period reported that candidates continue to incorrectly observe the command words and therefore compromise their ability to gain the marks available. Some candidates do provide too much information, which would not be required where a command word limits the expected answer to 'give' or 'identify'. Candidates would not be penalised for providing excessive detail but this would not be an efficient use of the time allocated. However, the majority of cases where command words are not observed relate to insufficient detail being given by a candidate in their examination answer.

There are a significant number of candidates who, irrespective of the command word given in the question, provide one or two word answers, or the answer is in the form of a bullet point list. This would normally not be sufficient to gain marks where the command word given was 'outline', 'explain' or 'describe', all of which require answers of more than one or two words as these command words clearly suggest. Course providers should ensure that their learning materials compliment the command words in the syllabus guide and should ensure that sufficient time is given to examination technique during a course of study.

NEBOSH have provided guidance on command words on their website and course providers should make this available to candidates as part of their learning materials. A link to this document is given later is this report.

#### Candidates unnecessarily wrote the question down

Developing a time plan (as referred to above) is a key element in preparing for an examination. Advice included on a NEBOSH National General Certificate examination paper suggests that 30 minutes should be allocated for the answer to the long 20-mark question, and 90 minutes should be allocated to the answers for the remaining ten short, 8-mark questions. Therefore there are around 9 minutes available to answer an 8-mark question. This time will be required for reading the question properly at least twice (see above), developing an answer plan, and then committing the answer to paper while regularly referring back to the question in order to maintain focus. Any inefficient use of this time should be avoided, yet nearly a half of all Examiners reported that a significant number of candidates continue to write out the question in full prior to providing their answer which is **not** required. While writing out the question will not lose marks, Examiners are well aware of what the question is and do not require the candidate to repeat it. Additionally, over a third of Examiners in this period have reported that candidates did not answer all of the questions in the time permitted and did not complete the paper, some of whom appeared to have run out of time, possibly due to writing out each question before answering.

This issue has been included in the last five Examiner reports, yet writing down the question continues to be a significant problem and course providers should remind candidates that it is not necessary to include the question with their answer.

#### **Command words**

The following command words are listed in the order identified as being the most challenging for candidates:

#### **Outline**

The command word 'outline', is by far the most challenging for candidates this quarter. Referring to the NEBOSH guidance on command words available on the NEBOSH website, 'outline' means 'To indicate the principal features or different parts of'.

Several candidates did not give sufficient detail in order to warrant an outline answer. The guide to command word states that: 'an exhaustive description is not required. What is sought is a brief summary of the major aspects of whatever is stated in the guestion'.

Therefore if a question asks for an 'outline of the hazards associated with demolition work (see misreading the question, above) reference to falling materials, contact with services and exposure to contamination would not be sufficient on their own to gain the marks available. A suitable outline would include the types of falling material, reference to what services could be contacted and the possible sources of contamination that would indicate the principal features of the hazards of demolition work.

#### **Explain**

The command word 'explain' requires the candidate to provide an understanding of the subject of the question and may be used in conjunction with 'why' or 'how'. Therefore questions that include the command word 'explain' are intended to test the candidate's ability to know or understand why or how something happens, such as 'explain why a checkout operator in a supermarket may be at risk of work-related upper limb disorders (WRULDs)'. Some candidates approach an 'explain' question the same as an 'outline' and provide a number of individual points, such as in the checkout example, overreaching, repetitive actions and manual handling, rather than providing an explanation as to why these activities would cause WRULDs.

#### Identify

When providing an answer to a question qualified by the command word 'identify', the name or title of an item is required. Such as, 'identify health effects associated with exposure to noise', or 'identify the components of an independently tied scaffold'. In most cases one or two words will be sufficient and further detail will not be required to gain the marks

Some candidates continue to provide detailed answers to questions that are qualified by the command word 'identify' (see examination technique above) that is not required. Candidates should feel confident that the quantity of words does not equal quantity of marks where the command word is limited to 'identify'.

#### **Describe**

The command word 'describe' clearly requires a description of something. The NEBOSH guidance on command words says that 'describe' requires a detailed written account of the distinctive features of a subject such that another person would be able to visualise what you are describing. However, candidates either see the command word 'describe' as an opportunity to fill out an answer with irrelevant detail, or conversely some candidates fail to recognise the difference between an 'outline' and 'describe' qualified question and provide insufficient detail in their answer. In either case the marks that can be awarded will be limited. If a person was asked to describe their shoes, they would have little difficulty in doing so and would not give unconnected information about shoes in general, fill a page with everything they know about shoes or explain why they were wearing the shoes. An appropriate answer would include reference to style of shoes, their colour, size, how they are fastened, etc. Candidates should consider the general use of the command word when providing examination answers.

#### **Give**

Give is usually used in a question together with a further requirement, such as 'give the meaning of' or 'give an example in EACH case'. Candidates tend to answer such questions satisfactorily, especially where a question might ask to 'identify' something and then 'give' an example, such as 'identify non-mechanical hazards associated with machinery AND give an example in EACH case'. The candidate who can answer the first part sufficiently, invariably has little difficulty in giving the example.

For additional guidance, please see NEBOSH's 'Guidance on command words used in learning outcomes and question papers' document, which is available on our website: www.nebosh.org.uk/students/default.asp?cref=1345&ct=2.

### Conclusion

The feedback from Examiners highlighted that candidates taking the GC2 examinations between April and June 2015 needed most improvement in the areas of the hazards, risks and controls associated with specific agents (learning outcome 7.5) and the health effects associated with exposure to noise and appropriate control measures (learning outcome 8.1).

With regard to examination technique, a significant number of candidates sitting this examination appeared to either misread or misinterpret the question, many candidates did not respond to the command word and some candidates unnecessarily wrote down the question as well as the answer.



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