

NEBOSH

MANAGEMENT OF HEALTH AND SAFETY

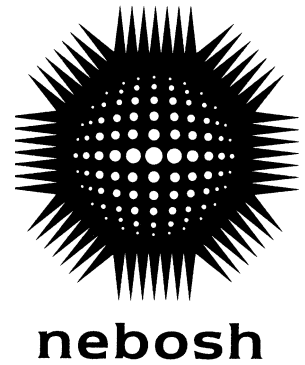
UNIT IG1:

For: NEBOSH International General Certificate in Occupational Health and Safety

MANAGEMENT OF INTERNATIONAL HEALTH AND SAFETY

UNIT IGC1:

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



Open Book Examination

Available for 24 hours

Guidance to learners

This is an open book examination. It is not invigilated, and you are free to use any learning resources to which you have access, eg your course notes, or a website, etc.

By submitting this completed assessment for marking, you are declaring it is entirely your own work. Knowingly claiming work to be your own when it is someone else's work is malpractice, which carries severe penalties. This means that you must **not** collaborate with or copy work from others. Neither should you 'cut and paste' blocks of text from the Internet or other sources.

The examination begins with a realistic scenario to set the scene. You will then need to complete a series of tasks based on this scenario. Each task will consist of one or more questions.

Your responses to **most** of these tasks should wholly, or partly, draw on relevant information from the scenario. The task will clearly state the extent to which this is required.

The marks available are shown in brackets to the right of each question, or part of each question. This will help guide you to the amount of information required in your response. In general, one mark is given for each correct technical point that is clearly demonstrated. Avoid writing too little as this will make it difficult for the Examiner to award marks. Single word answers or lists are unlikely to gain marks as this would not normally be enough to show understanding or a connection with the scenario.

You are **not** expected to write more than 3000 words in total.

Try to distribute your time and word count proportionately across all tasks.

It is recommended that you use the answer template.

Please attempt **ALL** tasks.

SCENARIO

You are the health and safety advisor for a large supermarket store that employs 80 permanent workers. The workforce is comprised of workers, day and night shift managers and a store manager. The store manager's working hours overlap the two shifts. The store is just 1 of 400 under the same ownership. The store manager is mainly concerned with keeping shelves fully stocked with goods to meet customer demand and ambitious sales targets. When not in their office, they spend the rest of their time walking up and down the goods aisles checking for empty shelves. This supermarket was listed in the top 10 for sales last year and the store manager wants to do even better this year. They have told shift managers that they do not care how it is done, but the supermarket must be in the top 5 this year for everyone to receive their bonus.

As a result of high demand leading up to a very busy national holiday period, 20 additional temporary workers have been recruited. Before starting work, the temporary workers have a very brief induction consisting of a 2-minute video explaining the company values. However, there are no written job descriptions and limited instruction or training about how to do the work. There is very limited supervision. There are also no written training records for these workers. The temporary workers are unaware of the company health and safety policy or how to report any issues, defects, or problems to their shift manager. They are immediately put to work in busy areas where they are needed most, such as shelf-stacking and transporting empty cardboard boxes to a storage area for compacting. They are told not to operate the compactor as it is dangerous and has been the subject of a previous enforcement visit.

As part of the supermarket's drive to be more environmentally responsible, they have a large compactor (baling) machine. This is used to compact waste cardboard packaging so that it takes up much less space when it is stored and transported. The compactor comprises of three sections, arranged vertically. At the top is an enclosed hydraulic ram. In the centre is an opening, at about chest height, through which the cardboard is fed; the opening is guarded by a safety gate. At the bottom, resting on the ground, is a chamber, in which the cardboard is compacted by the hydraulic ram; the contents of the chamber can be accessed through a safety door on the front of the machine. Under normal circumstances, the authorised operator manually opens the safety gate and feeds waste cardboard into the machine through the opening, which then falls into the chamber below.

When the chamber is full, the authorised operator closes the safety gate across the opening above and starts the compactor using control buttons on the side of the machine. This causes the vertical hydraulic ram to move down, compacting the cardboard into bales in the chamber, before returning back up to its starting position. An alarm sounds to indicate the process is finished. The authorised operator then opens the chamber's safety door, binds the bale of cardboard with wire and moves it onto pallets, where it is stored for eventual pick-up by a recycling contractor. The gate and door are fitted with a safety protection device that means, in normal circumstances, the hydraulic ram cannot operate unless both are closed.

Some months ago, the store manager had arranged for the compactor installer to train shift managers and experienced workers on the use of the compactor. You then help the trained workers to complete a compactor risk assessment. The plan was, that following on from the risk assessment, the day shift supervisor would develop a safe operating procedure (SOP) for the machine. However, this supervisor retired and left the organisation before the SOP was completed and authorised. As a result, some workers did not fully understand the SOP and often sought clarification from the day shift or night shift manager. This was viewed as a complaint by the respective shift manager. Whenever workers raised any safety concern, the response was usually the threat of discipline in the form of formal warnings, loss of bonus, or dismissal and replacement by other 'more willing' workers.

At the beginning of the day shift, the shift manager was told that the compactor's safety protection device had stopped working. The compactor continued to operate even when the safety gate was open. The shift manager tried to telephone the installation company for most of the day and only got an answer towards the end of the shift. The installation company told them that they could not send an engineer to fix it for at least 24 hours. This was relayed to the store manager who told workers in the compactor area only not to use the machine until it had been fixed, but took no other action to

prevent its use. Neither the store manager, nor the day shift manager re-visited the compactor area of the supermarket. At shift handover, the day shift manager simply told the night shift manager that the compactor was 'faulty', and it would be fixed the next day.

At the beginning of the night shift, an experienced worker and a young temporary worker took a large pile of waste cardboard boxes to the compactor. Although warning signs specified 'authorised workers only to use this compactor', the experienced worker loaded the compactor with the cardboard and then told the temporary worker to operate the controls on the compactor. After a short while, the machine stopped with the hydraulic ram down on top of some compacted cardboard. The experienced worker saw that the compactor was jammed (as it often did) and so immediately opened the safety gate and reached inside to try and clear the jam. The compactor re-started suddenly, crushing the worker's hand. The temporary worker called the emergency services directly, as they did not know what else to do. There was no first-aider working on shift at the time of the accident. The injured worker was immediately taken to hospital and required amputation of their lower arm. The temporary worker was distressed and advised to go home. As soon as the night shift manager found out about the accident, they telephoned the store manager. The store manager told them to do nothing and said that they would start an investigation the following morning, and that this was no reason to delay fixing the faulty compactor as already arranged.

The following morning you are asked to carry out an accident investigation by the store manager. You have been warned not to spend too much time on it so that the store can go back to normal as quickly as possible to hit those sales targets. You strongly disagree with this attitude and argue that it is a serious accident and needs to be investigated properly. You ask the store manager why the investigation has been left until now and they reply that you are responsible for such health and safety matters, so it is your job and not theirs. You inform the store manager that, due to the injuries sustained, the accident needs to be reported to the enforcement authorities as soon as possible. The supermarket store should also expect another visit from the enforcement authority. You also inform the store manager that the injured worker is likely to claim for compensation. As a result, a court case is likely and the supermarket will need a lawyer. This is the latest claim of many such claims over the years by workers at this supermarket.

Task 1: Workers' responsibilities in the workplace

- 1 The injured worker, and their fellow worker, may have contravened some of their responsibilities as workers within International Labour Organisation Convention C155 – Occupational Safety and Health Convention, 1981 (No.155) Article 19 and associated Recommendation R164 – Occupational Safety and Health Recommendation, 1981 (No.164) recommendation 16.

Comment on the extent to which Article 19 of C155 and recommendation 16 of R164 may have been contravened.

(10)

Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 2: Influencing health and safety culture

- 2 To improve health and safety performance in the supermarket, you know that you need to positively influence health and safety culture.

What appear to be the negative indicators of health and safety culture at the supermarket?

(20)

Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 3: Health and safety management roles and responsibilities

- 3 Comment on the effectiveness of roles and responsibilities in relation to health and safety management in the supermarket.

(10)

Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 4: Accident investigation and recommendations

- 4 (a) Why should the scene of the accident have been secured?

(5)

(b) Based on the scenario only, what training would you recommend the supermarket arranges for the different types of workers to minimise the probability of a repeat accident?

(15)

Task 5: Determining individual human factors that negatively influence behaviour

- 5 What individual human factors might have negatively influenced the behaviour of the injured worker?

(10)

Note: You should support your answer, where applicable, using relevant information from the scenario.

Task 6: Showing how the faulty compactor exposed workers to greater risk

- 6 With the compactor's safety protection device not working, the workers were exposed to significantly greater risk. A good visual way of demonstrating and understanding this is to draw a risk matrix like the one shown below.

		Likelihood →		
		Very unlikely (Risk rating 1)	Likely (Risk rating 2)	Very likely (Risk rating 3)
Severity ↑	Major injury (Risk rating 3)	Medium	High	High
	First-aid injury (Risk rating 2)	Low	Medium	High
	Minor injury (Risk rating 1)	Low	Low	Medium

- (a) Assuming that you are teaching someone who has never seen this kind of risk matrix before
- show how the matrix can be used to confirm that the risk level was acceptable when the compactor risk assessment was initially carried out. **(5)**
 - show how the matrix can be used to confirm that the risk level changed significantly with the safety protection device not working. **(5)**
- Note:** Show calculations and support the calculations using information, where applicable, from the scenario.
- (b) What additional *administrative* control measures could the supermarket put in place to prevent a repeat of this accident with the compactor? **(10)**
- Note:** You should support your answer, where applicable, using relevant information from the scenario.

Task 7: Financial arguments for the store manager to improve health and safety

- 7 Based on the scenario only, what financial arguments could you use to convince the store manager that health and safety needs to be improved? **(10)**

End of examination

Now follow the instructions on submitting your answers.