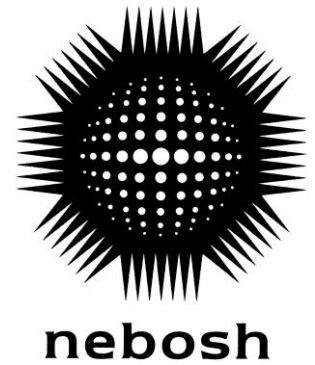


NEBOSH

MANAGEMENT OF HEALTH AND SAFETY

UNIT IG1:

For: NEBOSH International General Certificate in Occupational Health and Safety



Open Book Examination

ANSWER TEMPLATE

Available for 24 hours

Learner name	Usman
NEBOSH learner number	00998073

Please note: if you decide not to use this template, you will need to include the same information on your submission, including the following:

- your unit code (eg IG1);
- the examination date;
- your name;
- your NEBOSH learner number;
- page numbers for all pages;
- question numbers next to each of your responses.

The editable boxes in this document are expandable and will continue to grow as you type.

You do **not** need to copy out the questions.



Please save your completed answer document with your surname, your first name, and your NEBOSH learner number.

For example, a learner called Dominic Towlson with the learner number 12345678, will name their submission: Towlson Dominic, 12345678

Task 1: Workers' responsibilities in the workplace

Employees have responsibilities under recommendation 16 (part a,b,c,d) of International labour organisation (ILO), Occupational health and safety recommendations (No. 164), which were not followed as under:

(a) "Take reasonable care for their own safety and health and that of others" Supervisor A:

Supervisor A left apprentice alone with large, powerful, dangerous power press after limited supervision.

And when supervisor came back, he shouted on apprentice to work fast, rather than focusing and instructing the apprentice to work safely.

Apprentice:

When the apprentice was operating with power press, he looked around and removed his ear defenders, even though he was instructed that it should be worn all the time and he signed it.

This exposed him to noise and resulted in headache and buzzing in ears and could also cause hazard for others of injured.

(b) "Comply with safety instructions and procedures" Supervisor A:

The supervisor A dismissed and did not take risk assessment seriously and undermined safety procedures by saying 'this is a risk assessment; something that managers do to keep themselves legal, but it is not important for you' to the apprentice.

The Supervisor A rushed safety induction training due to production pressure, that means procedures were not followed properly.

Apprentice:

The apprentice did not ask any questions during the induction, safety and task training, eventhough he did not understand the instructions properly.

The apprentice removed provided hearing protection (ear defenders), which shows that apprentice failed to follow instructions which were to not remover ear defenders. (c)

"Use protective equipment and safety devices correctly" Supervisor A:

Supervisor A failure to make sure that the apprentice understood the information regarding ear defenders and failed to ensure that they fitted the apprentice properly.

No checks were made by Supervisor A that use of PPEs (eat defenders) were ensured and continued.

Apprentice:

The apprentice did not report prior to work that ear defenders were not fitting to his ears properly and we're uncomfortable. The apprentice removed the ear defenders while working with power press, after looking around, just because we not fitting properly to his ears.

(d) Report hazardous situations and incidents

Supervisor A:

There was high noise level, missing noise absorbing panels, and lack of supervision for apprentice, which Supervisor A failed to report.

Eventhough the incident was reported to HSM, but earlier reporting could have prevented harm to apprentice.

Apprentice:

The apprentice experienced excessive noice, poor fit of ear defenders, or the lack of confidence for using power press, which he did not report earlier.

The symptoms were only reported next day after he experienced temporary hearing effects.

Conclusion:

Both Supervisor A and Apprentice failed to comply with the responsibilities set by the International Labour Organisation (ILO's) Recommendation 164. Supervisor A set poor example by undermining procedures, prioritising production over safety, lack of the supervision that means failing to adequately supervise and protect vulnerability of

workers, while apprentice did not follow the instructions, did not report hazards and did not use PPEs.

Task 2: Client duties under ILO Code of Practice

2

Duties filled by HSM in PP as client:

- There was an ensurance by HSM to consider only competent contractors, as only three contractors were invited to visit site and submit proposals.
- The HSM called utility company to know regarding services and make site safe before starting construction. Thus, elimination risk of hazard.
- There was assured that preconstruction information was provided and identified. This information includes grassland sites, overhead electric cables, Underground water pipes, all of them were included in preconstruction document by HSM.
- Competent designers were appointed by HSM, by making sure using a qualified architect with over 20 years of experience, who obtained AI necessary permissions before construction began and produced the building plans.
- Contractor's risk assessments, method statements, previous references, incident reportings arrangements, and qualifications were reviewed for checking competency by the HSM.
- The HSM selected most suitable and competent contractor by checking his informations, this demonstrated due diligence regarding the selection of contractor, rather than solely selecting contractor on basis of cost.
- The HSM confirmed construction budget with management team and made sure that adequate resources and budgets are available for construction.
- The construction phase plan was formally approved by the HSM before the work was allowed to be commenced, which was prepared and made by the Contractor A.
- The HSM made sure that there was adequate and realistic construction and project plan, like twelve weeks of build plan and two weeks of contingency allow for unforeseen delays like due to adverse weather affecting work.
- The HSM fulfilled regulatory notification duties, by notifying the labour inspectorate of construction project.
- There were arrangements made for site security and access control, and it was sured that contractor will apply fencing at construction site and restrict the unauthorized access.
- The HSM made sure regarding coordination, communication and cooperation by holding a meeting with contractor's site supervisor before construction began.
- There was a specific induction training for contractor's workers, masked sure they are aware of hazards, site titles rules, and information for unauthorized areas.
- Review and ongoing monitoring were arranged thorough daily meeting with site supervisor with HSM and unscheduled but planned site inspections to check weather they are complying with safety rules and protocols.

Task 3: Supporting effective internal audits

3

- Auditors are selected from different departments, resulting in fair auditing, that means they are independent from area there auditing, resulting in biasness and increasing objectivity.
- The HSM ensured that audits are carried out by the competent person, as in scenario HSM gave training to ten volunteer workers as an internal auditor.
- The audits are link with ISO 45001 certification, that means the audits are credible and aligned with internationally recognised standards.
- The audit covers full coverage rather than ad-hoc checks, as it covers all areas of Health and safety management system, and site.

- The HSM provided consistency and structure by establishing internal audit system and procedure that explains how audit is to be carried out.
- By involving workers in audit and as an auditor, the HSM has encouraged workers consultation and involvement, which improves openness and trust of the workers in audit.
- The HSM has clearly instructed to do fair and open audit focusing on system improvement rather than individual faults, this has resulted in no blame audit culture.
- Audit findings and knowings are consulted and reviewed by the health and safety committee on a quarterly basis, which insurance the issues are discussed and solved collectively.
- There is a clear view on deciding and making the improvement and corrective actions, with department manager involving and in making the improvement procedures.
- As in scenario, there is visible commitment and accountability demonstrated by leadership, as audit outcomes are reviewed annually by the senior management review meeting.
- Audit finding, results and improvements are communicated and informed to the workforce, for example through notice board, resulting and reinforcement in transparency and engagement.
- There is a continuous improvement from information from audits, not just safety in improvements but also continuous changes leading to more efficient organisational processes.
- The HSM has informed and encouraged auditors to share good practices and knowledge across departments during auditing, improving understanding of risk on the wider site.

Task 4: Job factors

4

Job factors negatively influencing the behaviour:

- Inadequate task training and induction training, with too much information given by supervisor at once and a lot of information were missed out as the apprentice was wearing ear defenders during the induction training.
- As in scenario, there was high noise levels in manufacturing area, cospi multiple manual machines and and there were the missing sound absorption panels, this all concluded in difficulty of communication and eventually increase risk of noise exposure.
- Poor support and supervision, as seen in scenario, Apprentice was left alone with large, potentially dangerous power press despite being in experienced and lack of confidence. This caused negative influence on the behaviour of apprentice.
- Production demand and time pressure. As the site was running at its full capacity and there was a machine breakdown and Supervisor A was in hurry to meet up with the production targets, leading to poor supervision and rushed training.
- Poor communication due to noise and PPEs.
- Wearing of PPEs during the induction training Meri difficult for the apprentice to hear information from Supervisor A, leading to missed, confused and lack of information about the safe working practices and environment.
- Excessive workplace noise.
- The work environment was very noisy due to the many manual machines operated and missing sound absorbing panels. This made the communication difficult and increase risk of noise related hazards, which result in the heading and buzzing sound in ear of the apprentice.

Task 5: Communication improvements

5

Improvement in health and safety communication with the apprentice:

- Provide written and clear information, such as task specific short information in a written format, rather than communicating and explaining the information verbally.
- Adequate time for the training must be ensured and provided. Removal of first production time pressure, so that the apprentice does not feel distracted and rushed during safety critical training and information.
- Improving the supervision and it's time during early working, keeping the supervisor present until apprentice is confident and competent.
- There should be supportive and adopt management, as in scenario, Supervisor was shouting and giving threats regarding job. Instead, he should be giving calm, precise, supportive and constructive feedback.
- Use of mentor or buddy system. As in scenario, Apprentice was working alone, instead he should have been joined with an experience worker for ongoing reassurance and guidance.
- Explaining of reporting problems with equipment immediately, like PPEs (ear defenders) should be checked for fit and comfort early before starting work.
- There should be regular follow of communication, for example through short checks and safety talks. this is to identify concerns early and point out key problems and aspects.
- Plan for better induction, as the information should be short and precise, informing over time rather than giving all information at once on the first day. This is to avoid the confusion for inexperience and new worker.
- Carrying out induction in a quiet and peaceful environment for better understanding. The PPEs like ear defenders must be removed while induction training and for the apprentice must be given after training completed for noisy work area.
- Avoid jargons and use simple language, explaining risk assessment in practical terms and defining its importance rather than dismissing or telling risk assessment just a paper work for a management.
- Two way communication must be encouraged. Instead of relying on the apprentice to speak up, the Supervisor A should be inviting questions during the induction training to engage two way communication.
- Use of practical demonstrations and visual aids, like in scenario, there should have been signage, photographs, or supervisor A could have given step by step information and instruction near power press to make affective and and reinforce verbal information.
- Reasons and importance of controls must be explained, such as the health effects of noise exposure and why the hearing protection is required. This will increase the compliance of the employees.

Task 6: Recognising change and its impacts

6 (a)

Management of change controls required changes:

- Job roles and responsibility changes.
- As of suggested automation in the scenario, it will reduce manual tasks and will require new maintenance activities and technical skills.
- Movement of products and materials.
- As in the scenario, new construction is proposed, due to new traffic routes, interaction between people and vehicle, and storage arrangements must be reconsidered.

- New maintenance activities introduction. There may be the involvement of new lockoff, isolation, permit-to-work arrangements included in servicing automated system.
- Connectivity and interfaces between the new and the existing facility, this will be including shared services, emergency arrangements and welfare facilities.
- Changes in emergency procedures, like fire detection system, evacuation routes, and coordination-communication between two buildings.

- There will be introduction to new activities, related hazards, and interfaces and coordination with existing operations, due to construction of new factory on the previously derelict grassland site.
- As compared to current manual machinery, the new automatic manufacturing machinery will bring and introduce different new control system, mechanical and electrical risks.
- As there will be new automated machines installed, there will be reduced noise risk as compared to previous manual machines, which may result in change of hearing protection equipment requirements. It will require an update in noise risk assessment and PPE policies.
- Change and doubling in production output, will result in higher throughput, increased workload, and potential changes to working hours and working shift patterns.
- As of new facility and machinery, there will be recruitment of new workers. Thus, resulting in increasing of need for new training, inductions, supervision and the management competence.

6 (b)

What should organisation considered when planning significant changes:

- Regulatory and legal requirements. This may include construction safety duties, machinery standards, planning permissions, and informing and notifying the enforcing authorities.
- Update and review of the risk assessment before the changes are implemented. These in risk assessment may reflect new materials, processes, new equipment, and the working practices.
- Changed and new hazards identification.
- These identifications must be covering altered work flows, construction activities, new automated machinery, and the connection and interfaces between existing and new facility.
- There should be clear justification and objective for the changes.
- This will include why the expansion is needed and what are the outcomes expected, such as reduced noise exposure and increased production capacity.
- Preparedness for the emergency. There should be coordination between two buildings, reviewing evacuation plan, and first-aid provision for the emergency preparedness.
- Arrangement for effective communication.
- Every workers and contractors affected from the changes must know that what is the work being carried and changes, when it will happen, and how it will affect them.
- Impact on current schedules and operations.
- It must be assessed that the how will the changes affect current operations like traffic routes, noise exposure, emergency arrangements and the production schedules during and after the changes.
- Resources adequacy. It should be considered about the adequacy of resources such as staffing, budgeting, time and welfare facilities to make sure the changes are implemented effectively and safely.
- Allocation of roles and responsibilities.
- It should be considered to clarify who is responsible and accountable for approving, managing and monitoring the changes.

Task 7: Lack of controls

7

➤ Behavioral control failures to prevent ill-health incident of the apprentice:
There was a failure to speak up, as the apprentice did not report the discomfort of ear defenders and did not ask questions, result of lack of confidence or excessive noise of the work area.

Unsafe behaviour was shown by the apprentice, as he removed the hearing protection (ear defenders) by looking around while operating the power press.

Poor safety leadership behavior, as supervisor A's attitude and behaviour undermining the organisation's otherwise positive safety culture.

Negative supervisory behaviour, as the supervisor was making hurry during the induction, prioritising production, threatening the apprentice for probation failure and shouting, is discouraging safe behaviour.

➤ Procedural control failures to prevent ill-health incident of the apprentice:
Ineffective and poor induction process, as the large amount of information was given at once and collectively, therefore the apprentice missed lot of key informations and details, due to wearing ear defenders and excessive noise.

Risk assessment was not communicated, as the supervisor A dismissed the risk assessment importance and ignored it, and told the apprentice that it is just to legally save management, resulting in apprentices did not understand the hazards and required controls. Inadequate and poor task specific training, with minimum supervised practice and supervision on the high-risk power press, and was given the rushed instructions only. Lack of procedure for supervision for new worker.

As in the scenario, the inexperienced new apprentice was allowed and left alone with the dangerous equipment (power press).

➤ Technical control failures to prevent ill-health incident of the apprentice:
Poor and inadequate noise control, as in the scenario the work area (manufacturing area) was very noisy despite sound-absorbing panels installed, there were large gaps where panels were missing.

Relying on the PPEs as main control for noise hazard exposure, and not making any Engineering control for reduction of noise on the old, manually operated press machines. Suitability of the PPEs were very poor, as the initially provided ear defenders did not fit the apprentice and it was badly fitted and were very uncomfortable. So, discouraging its use.

Task 8: Audit approach

8

Important to review findings from audits

- Improvement and Prevention Focus Reviewing audit findings helps identify failures in controls and procedures.
- Reviewing continuous improvement of the health and safety management system.
- Lessons learned from audits help reduce the likelihood of repeat of Incident and protect from the Future Incident.
- Management and Accountability Focus Audit review provides assurance to senior management about the effectiveness of health and safety arrangements.
- Compliance: Provides evidence to regulators and ISO 45001 auditors that the organisation actively monitors and improves safety performance.
- Need Continuous improvement in Management of health and Safety For Reduce the Risk Of Any Incident.
- Workforce Engagement and Learning Focus-reviewing audit findings encourages organisational learning.

- | |
|--|
| |
| ➤ Workforce Engagement and Learning Focus enables sharing of good practice across different departments. |

Task 9: Level of incident investigation

9

Level of incident investigation

Based on the HSG245 guidance for Incident investigation, a medium-level investigation is appropriate for an apprentice suffering from ill-health due to noise exposure for the following reasons:

- HSG245 states that a medium-level investigation is appropriate where the consequences are moderate and the likelihood of recurrence is more than low.
- A minor investigation would not be sufficient to identify and address the underlying control failures.
- A medium investigation identify immediate such as poor supervision, training, and inadequate PPE selection.
- A major investigation would be disproportionate given the limited severity, while a minor investigation would not adequately address the control failures.
- According to HSG245, medium investigations are suitable where is potential for serious harm
- The likelihood of further incidents is more than low, on the workplace noise level are high, sound-absorbing panels are missing.
- The supervisor was inexperienced and left unsupervised, which increases the chance of repeated unsafe behaviour.
- The incident Shows system weaknesses, including induction, poor communication, and lack of supervision.
- This level of investigation is appropriate to the severity of the incident and and helps reduce the risk of a similar incident occurring again in a high-risk manufacturing.

Your total word count*	3000
-------------------------------	------

** please note that this form already has 275 words (excluding text boxes and footers), which you can deduct from your total amount if you are using your word processor's word count function.*

--

Documents and sources of information you used in your examination	<p><i>For example: course notes, HSG245</i></p> <p>HSG245 notes, NEBOSH Notes,</p> <p>https://normlex.ilo.org/dyn/nrmlx_en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312502</p> <p>https://www.slideshare.net/slideshow/neboshinternationaldiplomaquestionanswerspdfunit</p> <p>https://www.theiaa.org/globalassets/site/content/guidance/recommended/supplemental/prguides/global-practice-guide-building-an-effective-internalaudit-function-in-the-public-sector/building-an-effective-internal-auditfunction-in-the-ps.pdf</p> <p>https://www.youtube.com/watch?v=DMTM0-iEOs4</p> <p>https://www.projectmanager.com/blog/what-is-change-control-in-projectmanagement</p> <p>https://www.hse.gov.uk/humanfactors/topics/orgchange.htm</p> <p>https://www.youtube.com/watch?v=t7ZMDRJ4V4g https://www.youtube.com/watch?v=m8</p>
--	---

End of examination

Now follow the instructions on submitting your answers in the *NEBOSH Certificate Digital Assessment - Technical Learner Guide, English*. All guidance documents can be found on the NEBOSH website:

<https://www.nebosh.org.uk/digital-assessments/certificate/resources-to-help-you-prepare/>