BSBWHS409

Assist with workplace monitoring processes

ASSESSMENT FOR BSBWHS409

Student name	Sandra McCarthy
Date of assessment submission	31/03/2019

Trainer/Assessor's name	
Date of assessment marking	
Outcome for unit	☐ Competent ☐ Not Yet Competent

TASK INSTRUCTIONS

- The assessment for this unit of competency consists of the following:
  - **A series of activities:** Some of these activities will require you to provide a response within this document, others will require you to gather evidence to demonstrate your knowledge and skills (overview below)
  - **Quiz:** You will be required to complete a series of questions to demonstrate your knowledge and skills.
  - **Practical task:** You will be required to have an observer attest to your knowledge and skills and sign a report to this effect.
- At times, you will be provided with a specific business context to which you must respond, otherwise it is anticipated that you will use a workplace of your choosing (your own, or hypothetical) to provide the context to the task.
- At all times, the responses in your assessment must reference **Australian** (Queensland or Federal) documentation, including legislation, regulations, codes of practice, standards and guidance publications.

ACTIVITY OVERVIEW	REQUIRED FOR SUBMISSION
1. Regulatory requirements and standards	• Workbook response (below)
2. Characteristics of agents and conditions	• Workbook response (below)
3. Communicating with others	• Workbook response (below)

ACTIVITIES

For the following activities, name a workplace that you wish to examine.

Name of workplace	Civforce Traffic Management

Identify and describe the requirements of each of the following within your chosen organisation, with regards to workplace monitoring:

a) Act
b) Regulation
c) Code of practice
d) Standard

Name of Act
Work health and Safety Act 2011 (Qld) https://www.legislation.qld.gov.au/view/html/inforce/current/act-2011-018
Requirements
Section 19 (3)(g) outlines that a PCBU must ensure, so far as is reasonably practicable, that the health of workers and the conditions at the workplace are monitored for the purpose of preventing illness or injury of workers arising from the conduct of the business or undertaking https://www.legislation.qld.gov.au/view/html/inforce/current/act-2011-018#sec.19

Name of Regulation
Work Health and Safety Regulation 2011 (Qld) https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2011-0240
Requirements
Section 50 outlines that a PCBU must ensure that air monitoring is carried out to determine the airborne concentration of substance of mixture at the workplace to which an exposure standard applies if monitoring is necessary to determine whether there is a risk to health. https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2011-0240#sec.50

Name of Code of practice
Electrical Safety Codes of Practice 2013 https://www.worksafe.qld.gov.au/laws-and-compliance/workplace-health-and-safety-laws/laws-and-legislation/codes-of-practice

Requirements
Section 2.1 outlines that a PCBU must inform workers and other persons at the workplace of any potential electromagnetic hazards at the workplace that may affect a medical condition. https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0007/59677/es-code-of-practice-risk-management.pdf

Name of Standard
Workplace Exposure Standards for Airborne Contaminants https://www.safeworkaustralia.gov.au https://www.safeworkaustralia.gov.au/system/files/documents/1804/workplace-exposure-standards-airborne-contaminants-2018_0.pdf
Requirements
Section 2.6 outlines that the PCBU must ensure that exposure to any hazardous chemical, or any substance with an exposure standard, is kept as low as reasonably practicable. https://www.safeworkaustralia.gov.au/system/files/documents/1804/workplace-exposure-standards-airborne-contaminants-2018_0.pdf

Outcome for Activity 1	☐ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	

a) Select one (1) chemical agent, one (1) physical agent and one (1) biological agent.
   - Identify and a condition (i.e. symptom) that would be associated with each agent.

b) Identify the characteristics of the chemical agent. You should refer to a Safety Data Sheet (SDS).

c) Explain how you would determine the area where the measurements should be taken for the agent.
   - What information would workers (and other affected parties) be able to provide?

d) Identify one (1) type of equipment that would be used to measure the agent.
   - Explain why you have selected this measuring equipment and its appropriateness for the environment, the activities being carried out and the level of risk.
   - Explain how you would calibrate, adjust and check the operability of the equipment selected. Does the equipment contain any in-built alarms?
   - Explain how the equipment is used. Be mindful of how health and safety are to be maintained and any limitations on the use and output of the equipment.
   - Identify the scale/units this equipment measures in and how results are recorded.
   - Explain how the equipment should be maintained and stored, including dismantling, cleaning and disposal requirements.

e) Determine a sampling plan/process for monitoring the agent.
   - Determine when and how the sampling will take place.
   - Identify work permits and written authorities you would need to obtain when conducting the monitoring activities.
   - Determine who is responsible for the monitoring and how you would assist with conducting the tests.

Name of chemical agent
Silica (construction dust: respirable crystalline silica, quartz) is a chemical compound found in most rocks, sands and clay, products such as concrete, mortar, bricks, tiles etc, which can cause an incurable lung disease called silicosis, lung cancer, renal cancer and chronic obstructive pulmonary disease (COPD)
Condition of agent

Exposure to RCS (respirable crystalline silica) can occur in a variety of industries where construction dust is generated by high energy processes such as cutting, sawing, grinding, drilling polishing, scabbing and crushing of silica containing materials.

https://www.worksafe.qld.gov.au/construction/workplace-hazards/silica-exposure-a-serious-risk-for-construction-workers

If a worker is exposed to and breathes in silica dust they could develop:

- chronic bronchitis
- emphysema
- acute silicosis
  - can develop after a short exposure to very high levels of silica dust, within a few weeks or years, and causes severe inflammation and an outpouring of protein into the lung
- accelerated silicosis
  - can develop after exposures of 3 to 10 years to moderate to high levels of silica dust and causes inflammation, protein in the lung and scarring of the lung (fibrotic nodules)
- chronic silicosis
  - can develop after long term exposure to lower levels of silica dust and causes fibrotic nodules and shortness of breath
  - can include progressive massive fibrosis where the fibrotic nodules in the lung aggregate
- lung cancer
- kidney damage, or
- scleroderma
  - a disease of the connective tissue of the body resulting in the formation of scar tissue in the skin, joints and other organs of the body.

https://www.safeworkaustralia.gov.au/silica

Name of physical agent
Noise which may cause hearing damage
Condition of agent
Workers exposed to high noise levels are at risk of suffering permanent noise induced hiring loss. noise even at a low level can also be a hazard. https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=3381&context=hbspapers

Name of biological agent
Mould or yeast found in air conditioning systems and high humidity areas
Condition of agent
This can cause conditions such as allergies, respiratory disorders and Legionnaires disease http://www.ohsrep.org.au/hazards/biological-hazards/biological-agents

Chemical agent
Characteristics

As outlined in the SDS for silica sand found at:
https://www.holcim.com.au/sites/australia/files/documents/Holcim-SilicaSand-SDS-2017Mar.pdf

Recommend use: used as foundry sand , and as a fine aggregate in mortar and concrete

Risks: Health Effects: Acute (short term)
Swallowed: Unlikely under normal industrial use. Mildly abrasive to mouth and throat if swallowed.

Eyes: Dust is irritating and may cause redness and watering. Exposure to dust may aggravate pre-existing eye conditions.

Skin: Dust may be mildly irritating and drying to the skin, or abrasive, due to its physical characteristics

Health Effects: Chronic (long term)
Eyes:Dust may cause irritation and inflammation of the eyes and aggravate pre-existing eye conditions

Skin: Repeated heavy contact may cause drying of the skin and can result in skin rash (dermatitis) typically affecting the hands. Over time this may become chronic and can also become infected.

Inhaled: Repeated exposure to the fine dust may result in increased nasal and respiratory secretions and coughing. Inflammation of lining tissue of the respiratory system may follow repeated exposure to high levels of dust with increased risk of bronchitis and pneumonia. Pre-existing upper respiratory and lung diseases including asthma and bronchitis may be aggravated.

Long Term Effects:
Long term occupational over-exposure or prolonged breathing-in (or inhalation) of crystalline silica dust at levels above the WES carries the risk of causing serious and irreversible lung disease, including bronchitis and silicosis (scarring of the lung). It may also increase the risk of other irreversible and serious disorders including scleroderma (a disease affecting the skin, joints, blood vessels and internal organs) and other auto-immune disorders. IARC have recently classified respirable crystalline silica dust as carcinogenic to humans (IARC Group 1). This means it may can cause lung cancer. In the case of generated dust, the recommended controls outlined in Section 8 should be follow ed.
Following considerable research and consultation with Government authorities, Holcim considers low exposures to aggregate dust containing such traces are without risk to health.

HANDLING AND STORAGE:
Personal precautions, protective
equipment and emergency procedures: Recommendations on Exposure Controls / Personal Protection (see Section 8 below) should be follow ed during spill clean-up if conditions are dusty.

Environmental precautions: No specific precautions required.

Methods and materials for containment and clean up: Dust is best cleaned up by vacuum device to avoid making dust airborne. Wetting dow n before sweeping up dust may be a useful control measure.

Precautions for safe handling: Manual handling should be in accordance with Manual Handling Regulations and codes. Avoid breathing dust . Respirable dust can be generated during processing, handling, and storage.

Conditions for safe storage: When stockpiling and handling large quantities of sand, care should be taken to avoid having the faces of the stockpile steeper than the natural angle of repose of the material. Steep faces can fall without warning and trap persons, resulting in injury and possibly suffocation.

Incompatibilities: None

continued on next page…

Exposure controls:
Exposure Standards: Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia

Crystalline silica (quartz): TWA – 0.1 mg/m3 respirable dust. (< 7 microns particle equivalent aerodynamic diameter)
Total dust (of any type, or particle size): TWA – 10 mg/m3

Notes on Exposure Standards:
All occupational exposures to atmospheric contaminants should be kept to as low as reasonably practicable and in all cases to below the Workplace Exposure Standard (WES).
TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working w eek over an entire working life. According to current know ledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

Biological Limit Values: No biological limit allocated.

ENGINEERING CONTROLS

- Ventilation: Ensure exposures to respirable crystalline silica (quartz) are maintained below WES. Work in the open air, and the opening of external openings (such as doors and windows in buildings) generally provides adequate ventilation. Local mechanical ventilation or extraction may be required in areas where dust could escape into the working environment. Local dust extraction and collection may be used, if necessary, to control airborne dust levels. If generated dust cannot be avoided, follow personal protection recommendations.

- Special Consideration for Repair &/or Maintenance of Contaminated Equipment: Where possible vacuum or wash down all gear, equipment or mobile plant prior to maintenance and repair work. If compressed air cleaning cannot be avoided, w ear eye and respiratory protection, and clothing as listed below . Recommendations on Exposure Control and Personal Protection should be follow ed. When dust is present, ensure exposures to respirable crystalline silica (quartz) are maintained below WES.

PERSONAL PROTECTION

- PersonalHygiene:Wash hands before eating, drinking, using the toilet, or smoking. Wash work clothes regularly.

- SkinProtection:Wear loose comfortable clothing and gloves (standard duty leather or equivalent AS 2161).

- Eye Protection: Safety glasses with side shields or safety goggles (AS/NZ 1336) or a face shield should be worn.

- RespiratoryProtection: None required if engineering and handling controls are adequate to minimise dust generation and dust exposure. Where engineering and handling controls are not enough to minimise exposure to dust, personal respiratory protection may be required. The type of respiratory protection required depends primarily on the concentration of the respirable crystalline silica dust in the air, and the frequency and length of exposure time. Amount of exertion required during the work, and personal comfort are other considerations in choice of respirator. A suitable P1 or P2 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be sufficient for many situations, but where high levels of dust are encountered, more efficient cartridge-type or powered respirators or supplied-air helmets or suits may be necessary. Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly.

FIRST AID MEASURES
The following advice refers mainly to exposure to dust allowing processing of product.

Swallowed: Rinse mouth and lips with water. Do not induce vomiting. If symptoms persist, seek medical attention.

Eyes: Flush thoroughly with flow ing water for 15 minutes to remove all traces. Do not attempt to remove solid particles embedded in the eye. If symptoms such as irritation or redness persist, seek medical attention.

Skin: Remove heavily contaminated clothing. Wash off skin thoroughly with water. Use a mild soap if available. Shower if necessary. Seek medical attention for persistent irritation or burning of the skin.

Inhaled: Remove to fresh air, aw ay from dusty area. If symptoms persist, seek medical attention.

Advice to Doctor: Treat symptomatically.

Area for measurement

Silica is one of the most abundant minerals found in the earth's crust and is used in many products across a variety of industries and workplaces. Crystalline silica is most dangerous to health when dust is generated, becomes airborne and is then inhaled by a worker.
Examples of work activities that can generate respirable silica dust particles include:

- during fabrication and installation of composite (engineered or manufactured) stone countertops
- excavation, earth moving and drilling plant operations
- clay and stone processing machine operations
- paving and surfacing
- mining, quarrying and mineral ore treating processes
- tunnelling
- construction labouring activities
- brick, concrete or stone cutting; especially using dry methods
- abrasive blasting (blasting agent must not contain greater than 1 per cent of crystalline silica)
- foundry casting
- angle grinding, jack hammering and chiselling of concrete or masonry
- hydraulic fracturing of gas and oil wells, and
- pottery making.

According to the Safe Work Australia definition, (the) 'Exposure standard represents the airborne concentration of a particular substance or mixture that must not be exceeded'. Section 49 of the WHS Regulation uses this exposure standard as a means to pursue the goal of preventing adverse health effects.
The WHS Regulation establishes a minimum standard for exposure to dusts containing RCS where the exposure cannot be prevented. In this case, the relevant exposure standard for dusts containing quartz, cristobalite or tridymite which cause chronic disease is the 8 hour Time Weighted Average Exposure Standard (TWA-ES) of 0.1 mg/m3 measured as RCS in the respirable dust portion of a dust cloud. This RCS standard is expressed in accordance with the previously mentioned ISO convention for respirable dust sampled as is mentioned in Step 3.
It should be noted that the TWA-ES of 0.1 mg/m3 applies to a standard 8 hour working day. If your work shift is longer than 8 hours, it is necessary to make some downward adjustment in the exposure standard. This is to allow for both the extended period of work exposure and the diminished amount of time for recovery and clearance mechanisms to operate between consecutive shift exposures. Guidance for making this adjustment for extended shifts is provided in the Safe Work Australia Guidance on the interpretation of workplace exposure standards for airborne contaminants using an appropriate model (e.g. using the conventional Brief and Scala shift adjustment model, for a 10 hour work shift, the TWA-ES for RCS is reduced to 0.07mg/m3, and for a 12 hour work shift, it is reduced to 0.05 mg/m3*). The PCBU should seek professional guidance from an experienced occupational hygienist on the most appropriate shift adjustment model where extended shift operations involving RCS occur.
* mg/m3 = milligrams per cubic metre of air
https://www.safeworkaustralia.gov.au/silica
https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0008/83186/silica_managing_workplace.pdf

Measuring equipment

Under the model WHS Regulations, PCBUs have specific duties to manage the risks to health and safety when using, handling, generating and storing hazardous chemicals, including silica. PCBUs also have a duty to ensure the workplace exposure standard for crystalline silica is not exceeded and to provide health monitoring to workers.
Managing risks and worker exposures to silica can be achieved by selecting and implementing measures using the hierarchy of controls:

- **substitution** such as sourcing composite stone benchtops with a lower percentage of silica
- **isolation** of the hazard – using principles of safe work design to designate areas for tasks that generate dust and appropriate worker positioning during these tasks, using enclosures and automation to conduct dust generating tasks
- **engineering controls** that minimise the risk of exposure to generated dust, for example, local exhaust ventilation, water suppression (wet cutting) or using tools with dust collection attachments
- should a risk still remain; **administrative controls**, including good housekeeping policies, shift rotations and modifying cutting sequences
- should a risk still remain; **personal protective equipment** including appropriate respiratory equipment (generally a minimum of a P2 efficiency half face respirator) and work clothing that does not collect dust.

More than one control will normally be required to adequately protect workers.
The workplace exposure standard
The workplace exposure standard for respirable crystalline silica that must not be exceeded is 0.1 mg/m3 (eight hour time weighted average).
PCBUs should keep worker exposures to respirable silica dust as low as reasonably practicable. Air monitoring will need to be conducted If there is any doubt that the exposure standard is being exceeded or to find out if there is a risk to a worker's health.
This exposure standard has been reviewed as a priority by Safe Work Australia as part of the review of the workplace exposure standards. The draft evaluation report and recommendations for respirable crystalline silica is available for public comment via our consultation platform, Engage.
Health monitoring for workers exposed to silica
Under the model WHS Regulations, PCBUs must provide health monitoring for workers if they carrying out ongoing work using, handling, generating or storing crystalline silica and there is a significant risk to the worker's health because of exposure.
Further information about the duties for health monitoring can be found here:

- *Health Monitoring for Exposure to Hazardous Chemicals - Guide for persons conducting a business or undertaking*
- *Health Monitoring for Exposure to Hazardous Chemicals - Guide for workers*
- *Health Monitoring for Exposure to Hazardous Chemicals - Guide for medical practitioners*

The minimum health monitoring requirements for crystalline silica include:

- collection of demographic, medical and occupational history
- records of personal exposure
- standardised respiratory questionnaire
- standardised respiratory function tests, for example, FEV1, FVC and FEV1/FVC, and
- chest X-Ray full PA view (baseline and high risk workers only).

https://www.safeworkaustralia.gov.au/silica

https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0008/83186/silica_managing_workplace.pdf

Sampling plan/process

How is monitoring for RCS carried out?
Monitoring of exposure for RCS requires sampling the atmosphere as a personal dust sample which accompanies a worker as they conduct their work typically over a shift. The collected sample undergoes laboratory analysis for both respirable dust concentration and RCS concentration. The sampling for dust in the workplace is carried out in accordance with Australian Standard 2985:2009 Workplace Atmospheres - Method of sampling and gravimetric determination of respirable dust.
The worker wears a dust sampling device (called a vertical cyclone elutriator – see Figure 9 below) on the shirt lapel for a period of 6 to 8 hours (or longer if practicable) during the work shift. Dusty air is drawn through the sampling device by a small, portable, battery powered pump. The vertical elutriator separates out the respirable fraction of the dust which corresponds to that fraction of a dust cloud which will penetrate to the alveolar oxygen exchange part of the human lung. Sampling must be undertaken in what is referred to as the breathing zone of the worker, generally within 300 mm of the nose and mouth. Sampled dust is usually assessed for its respirable dust concentration, and also for its RCS concentration which is determined by infrared spectroscopy or X-ray diffraction analysis.
Because of environmental and workplace task variability, repeat sampling may be required to gain a better idea of likely exposure, and the likelihood of compliance with the regulatory exposure standard.
Monitoring for RCS can be expensive, so it should be undertaken judiciously. Where workers are potentially exposed to RCS and there is neither specific engineering control (e.g. ventilation or isolation) nor use of respiratory protection, then the risk management process is likely to require some monitoring. The naked eye cannot normally see respirable dust, particularly if present with other larger non-respirable dusts, so the eye thus cannot judge dust concentrations. Dust may be visualised, but not measured, by use of a Tyndall light scattering dust lamp. As the WES for RCS is very stringent, and the composition and concentration of the dust cloud will be unknown, the only reliable way to assess the risk from RCS will be through monitoring.
Only large workplaces with significant resources or those with specialist in-house expertise will be able to conduct their own silica monitoring. Most monitoring is conducted by consultant laboratories, private consultants, or occasionally by Workplace Health and Safety Queensland Inspectors.

https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0008/83186/silica_managing_workplace.pdf

Outcome for Activity 2	☐ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	

a) Which individuals and parties might you consult when identifying agents and conditions in the workplace?
b) Who might you consult with when collecting information and data about the requirements, nature and purpose of the monitoring?
c) Describe a situation where you might need to seek expert advice, due to limits in your own expertise and/or available equipment.
d) When interpreting and evaluating results you have collected, why should you compare them against a recognised standard?
   - Are there any limitations with exposure standards?
e) Explain how you might assist with preparing reports on the monitoring process and ensure that regulatory requirements have been met.
   - What would be the purpose of the report?
   - Who would be included in the target audience?
   - How should the information be presented (e.g. to show trends)?
   - How soon should information be presented? Justify your response.
   - Explain how the results and records would be stored, allowing for easy retrieval.
   - Explain how you would consider others' privacy in the delivery and secure storage of the results.

	Response
a)	You might be required to consult with the following parties when identifying agents and conditions in the workplace: workers, HSR, management. This will be to identify the agent and/ or condition to be measured and why it is a concern. This would be supplemented by research on the agent. *"Embark College Assist with workplace monitoring processes slide 6"*
b)	When collecting information and data about the requirements, nature and purpose of the monitoring, you will probably consult an expert who will provide advice on choosing appropriate monitoring equipment, and advice to understand the hazard, exposure and risk involved. You would also need to obtain permission from the workers when monitoring any agents, as well as any other people involved in the monitoring process or previous monitoring processes. *"Embark College Assist with workplace monitoring processes slide 6"*
c)	If you are not an expert nor have experience with monitoring a particular agent (such as one that requires specialised equipment) you would most likely need to seek expert advice. This would possibly be the case when the agent being monitored is uncommon or high risk, otherwise the workplace would mostly probably have a dedicated monitoring team *"Embark "College Assist with workplace monitoring processes slide 11"*
d)	You should compare results against a recognised standard to determine if the exposure to the agent and/or condition is acceptable or requires control measures to be implemented. There are some limitations with exposure standards in that the conditions under which your workplace testing occurs may not match that of the exposure standard. *"Embark College Assist with workplace monitoring processes slide 13"*

e)	The workgroup supervisor may be required to present the findings in the form of a report, as Sections 375-377 of the Work Health and Safety Regulation 2011 (Qld) requires heath monitoring reports to be provided to the worker, regulator and PCBU, respectively. Presenting information and date in a graph can assist with identifying trends, as it enables results over different time periods to be shown against each other. This information should be presented as soon as possible after the findings have been acquired, so that any required improvements can be implemented as soon as possible. The privacy of the employee(s) who have undertaken the testing should be protected in the report, by not naming them directly. Results and records must be kept in a way that is secure and easily accessible. Security is of utmost importance, particularly where there is a legislated requirement to keep records (Section 378 of Work Health and Safety Regulation 2011 (Qld)). As such, it would be ideal to keep such record electronically (with both electronic and hard copy backups), so that multiple people can be granted access and it can be accessed from anywhere. It would be advisable that such records (particularly when containing sensitive information) be password protected. *"Embark College Assist with workplace monitoring processes slide 14, 18"* https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0008/83186/silica_managing_workplace.pdf

Outcome for Activity 3	☐ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	

QUIZ

QUESTIONS	CORRECT
1. Match the following agents and conditions by placing the corresponding agent number next to each condition. **Label (1 – 9) Agent Label Condition** 1 Biological agents May result in hearing damage. Measured in dB(A). 2 Electricity One example is asbestosis. 3 Fibres, dusts and particulates Includes insects and bacteria. May result in bacterial infection. 4 Fumes, mists, gases and vapours May result in rashes and cramps. Meters measure in ^{0}C and %, respectively. 5 Heat and humidity May result in cancer. Measured in becquerel (Bq). 6 Light May result in sprains and strains. Velocity can be measured in mm/s. Frequency can be measured in Hz. 7 Noise May result in burns and shock. Measured in volts. 8 Radiation, including ionising, non-ionising and laser May result in respiratory problems. Can be measured using a monitor which measures in ppm (parts per million). 9 Vibration May result in UV burns to skin or eye damage. **Note: Due to the download it seemed to have scrambled the formate Answers as follows.** 1 Biological agents includes insects and bacteria. May rest in bacteria infection 2. Electricity may result in burns and shock Measured in volts 3 Fibres, dust and particles one example of asbestosis 4 Fues, mist, gasses and vapours may result in respiratory problems. Can be measures using a monitor which measures in ppm (parts per million) 5. Heat and humidity may result in rashes and cramps. Meters measures in degrees celsius and %, respectively 6. Light may result in UV burns to the skin or eye damage 7. Noise may result in hearing damage. Measured in dB(A). 8. Radiation, including ionising, non-ionising and laser may result cancer. Measured by becquerel (Bq) 9. Vibration may result in sprains and strain. Velocity can be measured in mm/s Frequency can be measured in Hz	☐

2. When determining the area where measurements are to be taken, which of the following should be taken into consideration? Select all that apply. x Movements of people x Tasks or activities occurring the in the workplace x When work is undertaken and when lunch time is x Whether the equipment emits something (e.g. light and sound)	☐
3. In which circumstances may you be required to consult with another party during the monitoring process? Select all that apply. x When determining the agent and/or condition to be monitored x For advice on which equipment to select x When recording readings x To determine the nature of the problem	☐
4. Which of the following information and data must be presented to relevant parties? Select all that apply. x Interpretation of results x The process undertaken ☐ Information about equipment that was not used x Effects for workers and the workplace	☐
5. If it is discovered during the monitoring process that a worker is exposed to serious risk due to an uncontrolled leakage of a substance, the PCBU can choose to control the leakage, rather than notifying the WHS regulator. ☐ True x False	☐

Outcome for Quiz	□ Satisfactory □ Not satisfactory
Trainer/Assessor comments	

PRACTICAL TASK

You are required to have a suitable observer verify your ability to complete the following tasks. These tasks may be simulated or real.

TASKS		VERIFIED
A.	Consult with others to form sampling process/plan. Identify: • Agent to be measured • Characteristics of agent • Measurement equipment to be used • The area where measurements are to be taken • Factors that may impact on sampling (e.g. movements of people and equipment, tasks or activities being undertaken, number of persons occupying the area).	☐
B.	Work with others to assist with monitoring process: • Calibrate monitoring equipment and select appropriate scale • Safely use equipment to collect information/data and record readings • Dismantle, clean and store equipment and parts.	☐
C.	Prepare an electronic written report on the monitoring process: • Present information and data clearly and logically • Interpret and evaluate results against a recognised standard • Use appropriate units of measurement, logarithmic scales, decimals and order of magnitude.	☐

Name of observer	
Role of observer (Confirm their suitability to sign)	☐ Trainer/Assessor ☐ Other (specify):
Phone number of observer	
Email address of observer	
Signature of observer	
Date	Click here to enter a date.
Comments	

Outcome for Practical Task	☐ Satisfactory ☐ Not satisfactory

Trainer/Assessor comments	