



This learning product has been developed for Technip by CSTC Pty Ltd.

ASSESSMENT FOR BSBWHS409A

Student name	Ryan Chua Wei Hui
Date of assessment submission	10/12/2015
Trainer/Assessor's name	
Date of assessment marking	Click here to enter a date.
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.
 - **Third Party Report:** You will be required to have a third party 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. Consultation with others	• Workbook response (below)
4. Documenting and evaluating results	• Workbook response (below)

ACTIVITIES

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

Name of workplace	MMHE Frabication Yard
--------------------------	-----------------------

ACTIVITY 1

Identify examples from the following areas that outline requirements that apply to monitoring.

- a) Act
- b) Regulation
- c) Code of practice
- d) Standard
- e) Guidance publication
- f) Workplace policy
- g) Workplace procedure

Document type	Name of relevant document <i>(e.g. Work Health and Safety Act 2011 (Qld) found at www.legislation.qld.gov.au)</i>	Relevant section for chosen workplace <i>(e.g. Section 7: A person is a worker if the person carries out work in any capacity for a PCBU, including work as a contractor or subcontractor)</i>
Act	Work Health and Safety Act 2011 (Commonwealth) found at https://www.comlaw.gov.au/Details	Part 2 Division 2: Primary duty of care Section 19: (1) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of: (a) workers engaged, or caused to be engaged by the person; and (b) workers whose activities in carrying out work are influenced or directed by the person; while the workers are at work in the business or undertaking. (2) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking (3) Without limiting subsections (1) and (2), a person conducting a business or undertaking must ensure, so far as is reasonably practicable: (a) the provision and maintenance of a work environment without risks to health and safety; and (b) the provision and maintenance of safe plant and structures; and (c) the provision and maintenance of safe systems of work; and (d) the safe use, handling and storage of

		plant, structures and substances; and (e) the provision of adequate facilities for the welfare at work of workers in carrying out work for the business or undertaking, including ensuring access to those facilities; and (f) the provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking; and (g) 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. (4) If: (a) a worker occupies accommodation that is owned by or under the management or control of the person conducting the business or undertaking; and (b) the occupancy is necessary for the purposes of the worker's engagement because other accommodation is not reasonably available; the person conducting the business or undertaking must, so far as is reasonably practicable, maintain the premises so that the worker occupying the premises is not exposed to risks to health and safety. (5) A self-employed person must ensure, so far as is reasonably practicable, his or her own health and safety while at work.
Regulation	Work Health and Safety Regulations 2011 found at https://www.comlaw.gov.au/Details/F2011L02664	Under the regulation 49, it requires PCBU is to ensure nobody is exposure to substances or mixture that aribone concentration is exceeds the exposure limit of the substances or mixture. Moreover, regulation 50 requires PCBU to ensure atmospheric monitoring is carried out to determine the airborne concentration of the substances or mixture at the workplace and the record shall be kept for 30 years.
Code of practice	Volume 3 Confined Space Code of practice found at https://www.comlaw.gov.au/Details/F2011L02804/Html/Volume_3	The monitoring requirement are differ from each other code of practice, it is depend on what kind of activity to be carry out. in this section, confined space activity is used to outline the monitoring requirement as stated in code of practice. In the confined space code of practice, the monitoring is discussed in the section shown below. 1.3 What is required in managing risks? 1.4 How to determine whether a space is a

		confined space 2. Role of Designer, manufacturers and suppliers 2.1 Eliminating or minimising the need to enter a confined space 5.2 Eliminate the need to enter into a confined space 5.3 Minimise the risks 5.4 Entry permits 5.5 Isolation 5.6 Atmosphere 5.7 Communication and safety monitoring 5.8 Entry and exit procedures 5.9 Signs and barricades 5.10 Information, instruction and training 5.11 Maintenance of control measures
Standard	Worksafe Australia National Standard Safe working in a confined space found at http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/ns1995safeworkinginconfinedspace	Safe working in a confined space 6 definitions 7 design, manufacture, supply and modification 8 consultation 9 hazard identification 10 risk assessment 11 control measures 12 safety of the atmosphere 13 risk control 14 education and training 15 rescue and first aid 16 record keeping Appendices a) List of referenced documents and related documents b) General design considerations c) Sample risk assessments d) Additional recommendations for the cleaning of confined spaces f) Additional recommendations for the conduct of hot g) Work in confined spacesf typical checklistg sample permit form for confined space entry h) Additional recommendations for atmospheric monitoring 40 i) Additional recommendations for provision and use of personal protective and safety equipment

Guidance publication	Guidance on the interpretation of workplace exposure standards for airborne contaminants found at http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/workplace-exposure-standards-airborne-contaminan	1. Guidance on the interpretation of workplace exposure standards for airborne contaminants 2. Adjustment of exposure standards for extended work shifts 3. Other factors affecting exposure 4. Information relating to specific groups of substances
Policy	Asia pacific HSE Policy found at http://thelink.exnet.technip.com/sites/kualalumpur/organization-information/APACPolicies/Regional%20HSE%20Policy%20March%2013%20Signed.pdf	In the company HSE policy, it was stated that Company will maintain the the HSE MS and also provide any support to take care the employee's health and safety, complying with the regulations and also to take care of the employee's health and safety.
Procedure	Confined Space entry found at H:\DPROJ\Procedures\HSE-GWP\1 GWP AP HSE\GL-AP-HSE-PROCEDURES\GL-AP-HSE-001-CONFINED SPACE	Confined space entry procedure would be take as example in mornitoring. In the procedure, it is stated that atmospheric measure must be carried out prior enter the confiend space. Also, continously gas check to ensure the atmospheric is without hazardous gases.

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

ACTIVITY 2

- a) Select one (1) chemical agent, one (1) physical agent and one (1) biological agent.
 - Identify 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.
- 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, where and how the sampling will take place
 - Identify work permits and written authorities you would need to obtain when conducting the monitoring activities. How do these aim to ensure safety and address privacy concerns?
 - Determine who is responsible for the monitoring and how you would assist with conducting the tests.

	Chemical agent	Physical agent	Biological agent
Name of agent and associated condition	Kerosene Acute effects of exposure to man Inhalation Vapours or mist may cause irritation of the nose and throat, headache, nausea, vomiting, dizziness, drowsiness, euphoria, loss of coordination, and disorientation. In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result. Skin contact Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling. Believed not to be a skin sensitiser.	Noise The main characteristics of noise-induced hearing loss are: • Noise-induced hearing loss is a cumulative process: both level of noise and exposure time over a worker's work history are important factors. • At a given level, low-frequency noise (below 100 Hz) is less damaging compared to noise in the mid-frequencies (1000 - 3000 Hz). • Noise-induced hearing loss occurs randomly in exposed persons. • Some individuals are more susceptible to noise-induced hearing loss than others. • In the initial	Mold Most molds are harmless but some can cause infections, allergy symptoms and produce toxins. Individuals with: a weakened immune system, allergies, asthma, sinusitis, or other lung diseases

	Eye contact May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye. Ingestion If more than several mouthfuls are swallowed, abdominal discomfort, nausea and diarrhoea may occur. Aspiration may occur during swallowing or vomiting, resulting in lung damage.	stages, noise-induced hearing loss is most pronounced at 4000 Hz but it spreads over other frequencies as noise level and/or exposure time increases.	
Characteristics of chemical agent	Appearance : Bright and Clear liquid Odour : NIL Solubility : Insoluble in water Boiling Point : 215 ~ 300 degree Celsius Melting Point : NIL Vapour Pressure : Not determined Percent Volatiles : Not determined Evaporation Rate : Not determined Vapour Density : Not determined Specific Gravity : 0.775 (min.); 0.83 (max.) Flash Point : 42 degree Celsius (IP 303) Autoignition Temperature : 210 degree Celsius Flammable limit(%) and : Upper Flammable Limit 5.0 % other properties if applicable Lower Flammable Limit 0.70 % Principal Hazards : WARNING : HARMFUL OR FATAL IF SWALLOWED PROLONGED OR REPEATED CONTACT WITH SKIN CAN BE HARMFUL. MAY CAUSE SKIN IRRITATION COMBUSTIBLE KEEP OUT OF REACH OF CHILDREN		
Area for measurements for chemical agent	The measurement was taken placed in the chemical tank		
Measuring equipment for chemical agent	Procedure: Samples are collected by drawing a known volume of air through glass sampling tubes containing coconut shell charcoal - Gas detector tube. Samples are extracted with 99:1 carbon disulfide (CS₂):N,N-dimethylformamide (DMF) and analyzed by GC using a flame ionization detector (GC/FID).		
Sampling process for chemical agent	The sampling took place in the morning after toolbox talk. Work permit has been applied and approved. JSA was also produced to ensure a safe sampling method. Recommended sampling time and sampling rate: 200 min at 0.1 L/min (20 L) Reliable quantitation limit: 4.79 mg/m³ Status of method: Partially validated method. This method has been subjected to the established evaluation procedures of the Method Development Team and is presented for information and trial use.		

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

ACTIVITY 3

- 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 and equipment, due to limits in your own expertise and available equipment.

	Response
a)	To identify agents and conditions in the workplace, we can consult occupational health and safety officer, workers and the supervisor who directly involving the activity. Occupational hygienist can be also consulted in identify the agent.
b)	Occupational hygienist can be consulted in collecting information and data about the requirements nature and purpose of the monitoring. As they are the specialist in practice of anticipating and recognise the workplace health hazards that can cause disease or discomfort, evaluating the extent of the risks due to exposure to these hazardous agents and controlling risks to prevent ill health in the long or short term.
c)	Workers carry out welding, cutting and gouging and painting activity in the confined space. The activity will create a lot of hazardous fume which might engulf the area in the confined space although ventilation is provided. Workers have to work continuously 8-10 hours a day in the same area and 1 hour break in between the working hours for lunch.

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

ACTIVITY 4

- a) When interpreting and evaluating results you have collected, why should you compare them against a recognised standard?
 - Are there any limitations with exposure standards?
- b) 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 soon should such information be presented? Justify your response.
 - Explain how you would consider others' privacy in the delivery of the results
- c) Explain how presenting information and data in a graph can assist with identifying trends.
- d) Identify a format that would allow you to retain results and records.
 - Explain how the results and records can be readily retrieved
 - Explain how the results would be securely kept for privacy purposes.

	Response
a)	the result shall be compared with the recognised standard because it is to ensure the workers are adequately protected from the substances that may impair health or cause undue annoyance. The exposure standards represent airborne concentration of individual chemical substances which according to current knowledge should neither impair the health or nor cause undue discomfort to nearly all workers. However, the recognised standard do not represent the fine line between what is safe and what is dangerous to health because - They change as new information becomes available about the toxicity of chemical - Individual vary in response to chemical exposure - They do not account for absorption of chemical by routes other than inhalation - They do not account for exposure to mixture of chemicals that may have synergistic effects in the body and they often based on the result of experimental on animals, requiring extrapolation to humans or epidemiological studies requiring some reliance upon historical data. Therefore, the exposure shall be maintained as far below as the exposure standard as possible. Most of the exposure standards are based on a 40-hour week but workers frequently work 12 hours shifts, therefore, we need to calculate revised exposure standards in these situations.
b)	In preparing reports, it is important to ensure the report must be able to read, understand, avoid jargon and assumptions about the readership. It is also important the report to include recommendation for improvement. Always double check that the reference material is current and relevant to the state and the location that have been monitored, Include photographic as evidence to support the findings and be sure to photograph all stages of the monitoring using camera which automatically date stamps each photo.
c)	Presenting information and data in graph are a good means of describing, exploring or summarising numerical data and identifying trends because the use of a visual image can simplify complex information and help to highlight patterns and trends in the data
d)	The results and record shall be kept in both electronic and in hard copy. It would be logical for the data to be stored on the personal medical files, which would be allow for easy exposure profiling. However, the confidentiality around medical records usually prevents this from occurring as safety professionals would not normally have unrestricted access to medical records. It is therefore usually necessary to have 2 separate systems. We need a procedure when dealing with workers and their personal samples, or their results for confidentiality and security. The information and record can be retained and for privacy purpose via filling in a form and obtain approval head of department before accessing the personal data, records and results.

Outcome for Activity 4

- ☐ Satisfactory
- ☐ Not satisfactory

Trainer/Assessor comments

Outcome for On-line Quiz	☐ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	

THIRD PARTY REPORT

You are required to have a suitable third party to verify your ability to complete the following:

SKILLS	VERIFIED
1. Consult with relevant individuals and parties to identify agent and/or condition to be measured.	☒
2. Determine the area where measurements are to be taken and appropriate equipment (seeking assistance and gaining permits where required).	☒
3. Plan and undertake sampling processes and plans in a logical and timely manner.	☒
4. Appropriately use equipment to conduct tests and record information and data.	☒
5. Clean, dismantle and store equipment, as required.	☒
6. Interpret and evaluate results, presenting information clearly and logically (including graphs).	☒
7. Prepare evaluation reports and other communications for a range of target groups, including: • Health and safety committees • Health and safety representatives • Managers • Supervisors • Persons Conducting Businesses or Undertakings (PCBUs) or their officers	☒
8. Assist with filing of results and records, as per requirements (including WHS, privacy and other legislative requirements).	☒
Name of third party	Phan Dinh Nguyen
Role of third party (Confirm their suitability to sign report)	HSE&S Dept Head
Date of report completion	10/12/2015
Phone number of third party	+(84-8)38227772
Email address of third party	pdnguyen@technip.com

Outcome for Third Party Report	☐ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	