Stage 2 Workplace Practices – 2016

External Assessment Cover Sheet

Assessment Type 4: Investigation

SACE Registration Number:

Student's industry focus for undertaking Workplace Practices: Construction

Practical Investigation ☐ **Issues Investigation** ☒

Description: *How is Scaffolding utilised in the Building and Construction Industry?*

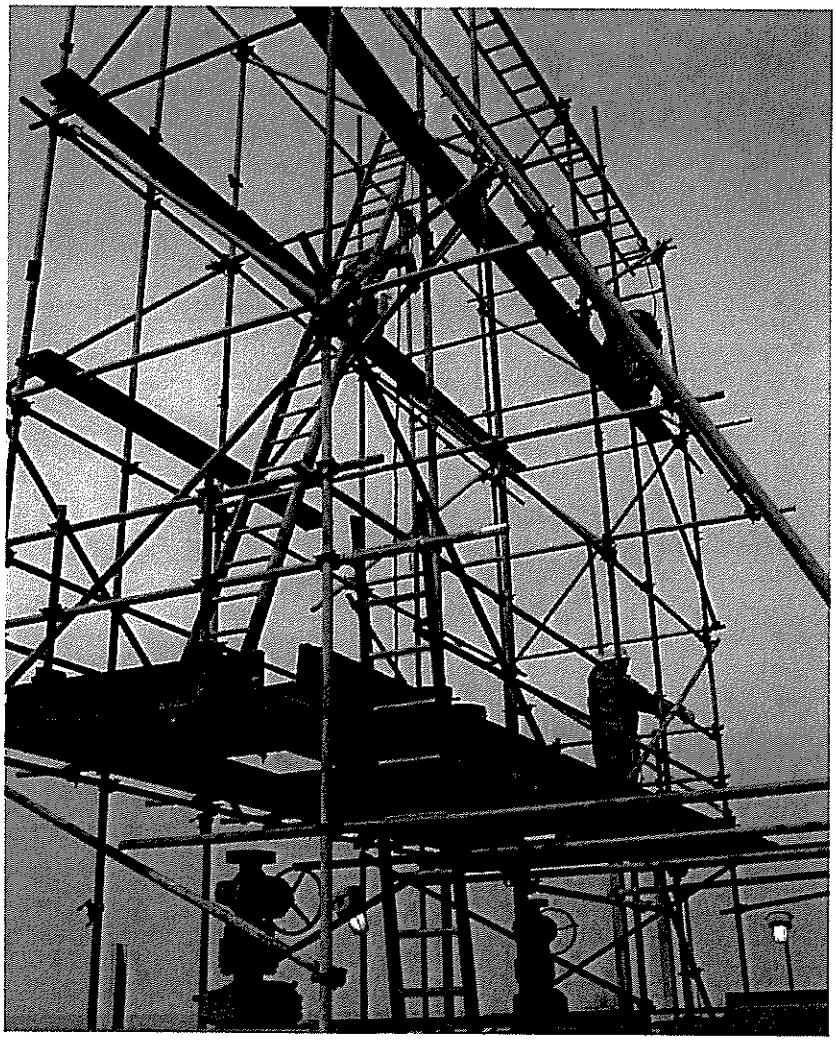
word count 1906
(for written only)

This **investigation** is assessed using the following specific features:

Knowledge and Understanding	Investigation and Analysis	Reflection and Evaluation
KU1	IA1	RE1
KU2	IA2	

Workplace Practices 2014- How is Scaffolding utilised in the Building and Construction Industry?

SACE No:



Introduction

Scaffolding is a major part of the Building and Construction industry. There have been many of injuries and deaths due to scaffolding. In my investigation I will be investigating legislation, training, death and injury and the Occupation Health and Safety of scaffolding. There are too many injuries and deaths in the construction industry. This is concerning because there are too many people dying due to the lack of training provided and for employees not following protocol and disregarding the laws.

What is a scaffold and scaffolding work?

A scaffold is a temporary and specifically erected to support access or working platforms[1]. Scaffolds are commonly used in construction industry so that workers have a safe, stable platform on which to work when working not on the ground floor and they need to finish work on a higher level. Scaffolds once properly built, are a control measure to stop the risk of people and equipment falling off at high distance and hurting others[2].

[1] http://www.deir.qld.gov.au/workplace/industry/construction/high-risk/scaffolding/index.htm#.VEYXcfmUeSo

[2] www.safeworkaustralia.gov.au/...laws/.../Scaffolding_Work.docx>

Laws & Training

Scaffolding work has been classed as High Risk Work since 1 September 2010. Prior to this it was known as a 'Prescribed Occupation' and required the operator to hold an OHS Certification Australia card or Certificate of Competency. To undertake this work employee's need a Licence to Perform High Risk Work unless they have valid certificates issued before 1 September 2010. Check the expiry date of certificates issued after 1 January 1999. All workers and site supervisor.

Basic scaffolding (Class SB)	consists of scaffolding work connected with the operation or use of: • Modular or pre-fabricated scaffolds • Cantilevered materials hoists with a maximum working load of 500kg • Ropes and gin wheels • Safety nets and static lines, and • Bracket scaffolds (tank and formwork)
Intermediate scaffolding (Class SI)	consists of all basic scaffolding work as well as scaffolding work connected with the use and operation of: • Cantilevered crane-loading platforms • Cantilevered and spurred scaffolds • Barrow ramps and sloping platforms • Perimeter safety screens and shutters • Mast climbers, and • Tube and coupler scaffolds (including tube and coupler covered ways and gantries)
Advanced scaffolding (Class SA)	consists of all intermediate scaffolding work as well as all other scaffolding work connected with the use and operation of: • Hung scaffolds, including scaffolds hanging from tubes, wire ropes or chains, and • Suspended scaffolds

Table 1 – List of the different classes of Scaffolding.

Table one detail the different levels of scaffolding and what employees need to be able to work in the three levels. For example the first level of scaffolding is the basic scaffolding and it has safe nets and safety lines, this would be the one where the new people would train so that they are confident when it comes to the other levels.

Death or injury

The case study found in Appendix A is of a man who had fallen from scaffolding in Sydney on the site. Following the fall, other employees gave him CPR, when the ambulance and police officers arrived to the man who was already dead. The police believe that the man had medical episode before falling.

The CFMEU (Construction, Mining, and Energy Union) will be taking over the investigation of this death. The secretary of the union sated that the Company did not have a very good safety record. If this was the case for the company that means that it was bound to happen that someone would have been killed or serious injured. In this incident the man was not trained to work in this area of construction. The article also states that the man did not have the proper supervision and mentoring. This means that the company did not follow the laws and regulations of scaffolding. [3]

Scaffolding regulations state that anyone can erect a scaffold that is less than 4 metres. Any scaffold higher than 4 metres requires employees to undertake a course that will get them a license to work on scaffolds higher than 4 metres. The scaffold in this case was 9.2 metres high. If this man did not have the correct training that means he did not have the license to work on this 9.2 metres scaffold. There is a fine to pay for not following protocol the standard fine is around $100,000-500,000 for a death on construction site. If the company had followed the simple laws this might have been prevented. The people that will receive the fine is the company, and then the company will deal with works that are responsible for the fine. [4]

[3] http://www.theaustralian.com.au/news/nation/union-slams- safety-record-after-death-fall-at- /story-e6frg6nf-1226798370039>.

[4] http://www.abc.net.au/news/2013-06-24/act-on-the-spot-construction-fines/4776072

Who has health and safety duties relating to scaffolds and scaffolding work?

A person conducting a business or undertaking construction work has the primary duty under the WHS Act to ensure, as far as reasonably practical, that workers and other persons at the workplace are not exposed to health and safety risks arising from the business or undertaking.

Designers of plant and structures must ensure, so far as is reasonably practicable, that the plant or structure is without risks to health and safety when used for a purpose for which it was designed. Pre-fabricated scaffolding requires design registration under the plant regulations.

Officers, such as company directors, will have the duty to exercise the ongoing carefulness that the business or undertaking that works with the WHS Acts and regulations. This includes taking reasonability to ensure that the business or undertaking has used appropriate measures to stop or minimise risks from the construction work.

Workers have a duty to take reasonable care for their own health and safety and that they do not out the risk of the other workers at harm. Workers must work with any sensible policies or procedures that are related to health and safety in the workplace. [5]

[5] http://www.hse.gov.uk/construction/safetytopics/scaffoldinginfo.htm

Managing risks with scaffolds

Identifying hazards:

The first step to managing risks is to identify the hazards with scaffold and the work that will be completed. Some examples of hazards that are with building, the use and the taking down the scaffold include:

- scaffolding collapse this can happen before, during and after the worker has placed the scaffold
- working near overhead power/electric lines
- mobile plant and other workplace traffic
- rusting or parts that are becoming weak
- working at heights
- objects falling
- the manual tasks
- overloading the platforms
- climbing the framework or using ladders to gain height
- placing electrical extensions [6]

Assessing risks:

A risk assessment you always consider what could happen if someone is exposed to a hazard. Many hazards and their related risks and accepted control measures. In situations like this, the second step is always to assess the risk. If do come across a hazard the next thing to do is, put in the control measure.

When assessing the risks you should consider:

- The type of scaffold
- The height of the scaffold
- The scheduling of the work
- The layout of the workplace.
- The number of works involved

[6] www.safeworkaustralia.gov.au/...laws/.../Scaffolding_Work.docx>

- Plant and the equipment that will be used near the scaffold
- What exposures might occur?

Once all the risks have been assessed it should be possible to:

- Select the most practical type of scaffold for the job.
- Minimise the work at heights for the people putting up and taking down the scaffold.
- Make sure that edge protection is on the scaffolding (including guardrails, mid-rails and toe boards). [7]

Controlling the risks:

The way to control the risk is by ranking them from highest level of protection and reliability to the lowest risk. The ranking is known by everyone as the *Hierarchy of the control measure.* The duty holder must always first try and remove a hazard. If this not possible then the risk must be minimised by using one of the following: [8]

Safe work method statements

In some situations, scaffolding work may involve activities that are classed as 'high risk construction work' under the WHS Regulations. High risk construction work includes:

- involves a risk of a person falling more than 2 metres
- involves structural alterations or repairs that require temporary support to prevent collapse
- is carried out on or near energised electrical installations or services
- Is carried out at a workplace in which there is any movement of powered mobile plant.

A SWMS (Safe Work Method Statement) is required, for example if the scaffold is built near electrical lines or if there is a risk of a person falling from 2 metres, during the erection or taking down of the scaffold.

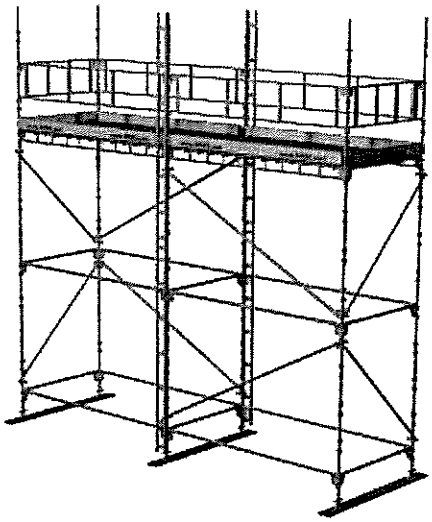
[7] www.safeworkaustralia.gov.au/...laws/.../Scaffolding_Work.docx>
[8] www.safeworkaustralia.gov.au/...laws/.../Scaffolding_Work.docx>

Different Types of Scaffolds

The design, shape, and location of the building or other structures should be considered when selecting the type of scaffold to be used. Choose a scaffold system that is most flexible to the building or structure, mainly if you're choosing the modular scaffold. You have to think about which scaffold you're going to use.

'Birdcage scaffold'

A birdcage scaffold is a scaffold, this scaffold consist of more than two rows of standards going in both direction, which are connected by ledgers and transoms. It's mainly used for work that is on a single level work. An example is ceiling work.



'Tower scaffold'

A tower scaffold is an independent scaffold involving of four vertical members connected longitudinally and transversely.

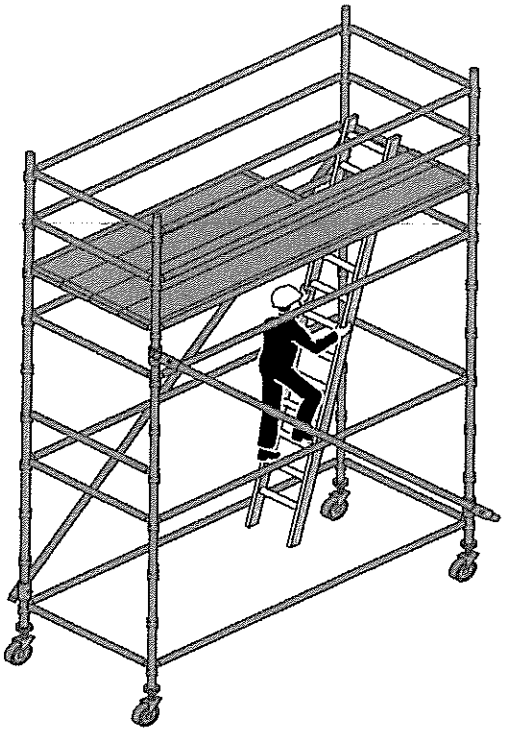
The following control measures should be applied for tower scaffolds:

- Construct the tower with modular, frame, or tube and coupler scaffolding
- Ensure the tower is resting on firm level ground with the wheels or feet properly supported. Do not use bricks or building blocks to take the weight of any part of the tower
- Use alternative height to base ratios or extra support if the scaffold is:
    - sheeted or likely to be exposed to strong winds
    - loaded with heavy equipment or materials[9]

'Mobile scaffold'

[9] www.safeworkaustralia.gov.au/...laws/.../Scaffolding_Work.docx>

A mobile scaffold is a tower scaffold that is mounted on castors



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1. *Sacfolding Safe work* 2013, Safe Work, accessed 2 October 2014, http://www.safework.sa.gov.au/show_page.jsp?id=110118 *Union slams Lend Lease safety record*
2. *after death fall at* , 2014, The Australian, accessed 30 August 2014, <2. http://www.theaustralian.com.au/news/nation/union-slams- safety-record-after-death-fall-at- story-e6frg6nf-1226798370039>.
3. *Codes of Pratice - Scaffolding work* 2011, Work Safe Austraila, accessed 10 September 2014, <3. www.safeworkaustralia.gov.au/...laws/.../Scaffolding_Work.docx>.

4. *Different Scaffolds* 2014, wiseGEEK, accessed 10 October 2014, http://www.wisegeek.org/what-are-different-types-of-scaffold.htm .

5. *Scaffolding* 2014, Queensland Government, accessed 1 July 2014, http://www.deir.qld.gov.au/workplace/industry/construction/high-risk/scaffolding/index.htm#.VEYXcfmUeSo .

6. *On-the-spot fines for building site safety breaches* 2013, ABC News, accessed 2 August 2014, http://www.abc.net.au/news/2013-06-24/act-on-the-spot-construction-fines/4776072 .

7. *Scaffold checklist* 2014, Health and Safety Effective, accessed 2 September 2014, http://www.abc.net.au/news/2013-06-24/act-on-the-spot-construction-fines/4776072http://www.hse.gov.uk/construction/safetytopics/scaffoldinginfo.htm

Appendix A

The death has prompted a union to accuse the construction company of failing to supervise workers properly at the site. But the company has rejected the accusation as a union attempt to score points off a tragic incident. Ambulance officers were called to the H Road site about 8.30am today but were unable to revive the man, who was pronounced dead at the scene. Police said he was 30 years old and is believed to have fallen from scaffolding. Colleagues had administered CPR to the man to no avail and work was halted at the site after the death. Lend Lease said in a statement: "Our thoughts are with the worker's family and friends. "We are investigating the circumstances surrounding the tragic incident." Police earlier said the man may have suffered a medical episode before he fell, but that has not been confirmed. Construction, Forestry, Mining and Energy Union (CFMEU) NSW secretary B said did not have a great work safety record. "We are confident there was a lack of supervision and mentoring for this young bloke," he said. CFMEU safety co-ordinator M said it was too early to say exactly what had happened, but the general laborer who died was not trained to work in the area from which he fell. In response to the union accusations, said it was "disappointing that anyone would use such a tragic incident to point-score". ". works tirelessly to eliminate incidents and injuries on its worksites," the company said. "Our focus now is on the welfare of the family of the deceased and all of our workers affected by the incident." Work Cover NSW inspectors are investigating the death and police will prepare a report for the coroner

WORD COUNT: 1,906

STAGE 2 WORKPLACE PRACTICES

ASSESSMENT TYPE 4: Investigation

Industry Focus: Construction

Assessment Design Criteria	Comments
KU1	At a general level, the student understands the importance of scaffolding, who is responsible for safety on such devices and the issues that can potentially arise. They have demonstrated some understanding of key concepts to do with scaffolding without linking them back to the question.
KU2	There is little explanation beyond the obvious of the actual issues involved in the industry to do with Scaffolding. The explanations are quite broad and rarely delve into the research beyond what has been discovered.
IA1	Through the research there is some description of the relationship between scaffolding, people's responsibilities, types of scaffolding and what can go wrong. The analysis, however, is minimal and never more comprehensive that very general.
IA2	It is clear that the student has researched a range of sources to find information, but it is also evident that beyond demonstrating this research, they have not understood how to link it with their Issues Investigation.
RE1	There is no reflection of Evaluation evident through this work. Although one or two statements might be considered reflective on a rudimentary level, they were more analytical and related to the research rather than the student's personal learning.

OVERALL GRADE: D+ (12)

Although there was enough evidence of engagement with a process of investigation, a question that allowed the exploration of an issue or workplace culture was not defined. This also contributed to a lack of evidence of Reflection and Evaluation, essentially precluding the student from attaining even a minimal grade for the final Assessment Design Criteria (RE).