



# QUEENSLAND LEARNER WORKBOOK

Student copy



# CONSTRUCTION INDUCTION

**WHITE CARD** 

CPCWHS1001 - Prepare to work safely in the construction industry

Produced by:



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# **ABOUT CONSTRUCTION INDUCTION**



# Aims of general induction training

**General induction training** aims to provide persons with a basic knowledge of workplace health and safety legislative requirements, principles of risk management and the prevention of injury and illness in the construction industry.

General induction training should be undertaken by anybody working in general construction (commercial and civil) as well as those in the residential construction sector.



General induction training should include a formal training program that provides workers in the construction industry with an awareness and understanding of:

- their rights and responsibilities under health and safety law
- common hazards and risks that are in the construction industry
- basic risk management principles
- the standard of behaviour expected of workers on construction sites.



### **General induction training** is recommended for:

- Anybody carrying out construction work including site managers, supervisors, surveyors, labourers and trades persons.
- Anybody with access to operational construction zones unaccompanied or not directly supervised by an inducted person.
- Anybody whose employment causes them to routinely enter operational construction zones.



General induction should be completed upon **entry** to the industry before commencing construction work.

However, general induction may be repeated when the person with control of the construction work decides that there is a need for additional training.

This can be determined through supervision, incidents that may occur, risk management, or when a person re-enters the industry after an extended absence; for example, two consecutive years.



# **HEALTH AND SAFETY LEGISLATION**



# Laws to keep your workplace safe

Health and safety requirements are outlined in Acts, Regulations, Codes of Practice and Australian Standards.





#### Acts

**Acts** are laws that explain how to improve health and safety in the workplace. Queensland has the Work Health and Safety Act 2011.

# Regulations

**Regulations** explain specific parts of the Act. For example, Queensland has the Workplace Health and Safety Regulations 2002.

## **Codes of Practice/Compliance Codes**

**Codes of Practice** are practical guidelines on how to comply with (meet the rules of) legislation.

For example: HAZARDOUS MANUAL TASKS Code of Practice

### **Australian Standards**

**Australian Standards** are work guidelines that set the minimum accepted performance or quality for a specific hazard, process or product. For example: AS 2550 – Cranes, hoists and winches – safe use set.

L. Question. The laws in Queensiand come under what Act?
Answer:
2. Question: What is the name of the regulation in Queensland that gives you more information about
the Act?
Answer:

# **Duty of care under the WHS Act**

Everyone employed by a company/PCBU (Person Conducting a Business or Undertaking) on a construction site has a 'duty of care'. The workplace must be a healthy and safe place to be.

Managers, supervisors, team leaders and all workers in general have a duty of care. A work-experience student or sub-contractor on site would also come under the 'duty of care'.

If you do not look out for the health and safety of others you can be fined or punished.

Someone not employed by the PCBU operating a construction site does not have a 'duty of care' for that site.



3. Question: What is the name of the regulation in Queensland that gives you more information about					
the Act?					
Answer:					
Worker's (employee's) duty of care	PCBU's (employer's) duty of care				
By law, as a worker you must take care of your own health and safety — and the health and safety of other people in the workplace.	By law, a person undertaking a business or undertaking PCBU has a number of obligations under the Health and Safety Act.				
You must also:	These include:				
<ul> <li>Do your best to follow reasonable safety directions from your PCBU/employer (boss).</li> </ul>	<ul> <li>Provide a workplace that is safe and without risk to health.</li> </ul>				
<ul> <li>Follow workplace health and safety procedures and policies.</li> </ul>	<ul> <li>Ask workers to follow reasonable policies and procedures to keep everyone safe.</li> </ul>				
Report unsafe situations	Report notifiable incidents.				
and hazards to their supervisor	Consult (talk with) workers.				
EMPHERET	Obey notices to comply with the Act.				
	Make sure that all health and safety representatives receive their training.				
4. Question: As an employee / worker what is your	'duty of care' under the WHS Act?				
Answer:					
5. Question: What is the PCBU / employer's 'duty of	care' under the WHS Act?				
Answer:					
6. Question: Is a PCBU a volunteer association?					
Answer:					
7. Question: Is a visitor on a construction site a men	nber of that site's PCBU?				
Answer:					
8. Question: On a construction site, do sub-contract	ors and work-experience students have a 'duty of care'?				
Answer:					
9. Question: Does a PCBU have to socialise with workers after work?					
Answer:					
10. Question: Does a worker have to follow a PCBU's safety policies and procedures (that are reasonable)?					

# IDENTIFY CONSTRUCTION HAZARDS AND RISK CONTROL MEASURES



## **Hazard versus risk**

### What is the difference?

The constantly changing nature of construction work sets it apart from other types of work. Different hazards and risks emerge constantly—sometimes instantly.

Co-ordinating risk management is made more difficult by the stop and start nature of a construction project, high turnover of workers and temporary workplaces. These features contribute to the high levels of risk in the industry.

## **Hazard**

A hazard is any thing or any situation which could injure or harm you.

In other words, it is anything that can hurt you.



# **Risk**

A risk is the chance of a hazard causing injury or harm.

In other words, how likely it is that somebody or something may be harmed by the hazard.



# Managing a risk

There are 5 steps you should take to manage a risk. They are:

- Step 1 Identify / find the risk.
- Step 2 Assess the risk. How likely is the risk and what serious would it be?
- Step 3 Report the risk.
- Step 4 Control the hazard to lower the risk.
- Step 5 Review the action you have taken.



# The best way to manage a risk is to eliminate (get rid of) it.

18. Question: What is a hazard?	
Answer:	
19. Question: What is a risk?	
Answer:	
20. Question: Use one or two words to describe each of the 5 steps to manage a risk?	
Answer:	
21. Question: What is the best way to manage a risk?	
Answer:	

# **Confined spaces**

Working in confined spaces requires the following:

- · confined space training
- a confined space entry permit
- a written risk assessment

# Confined spaces can include:





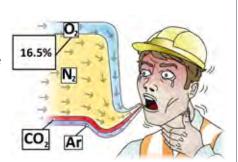


# How to identify a confined space

A **confined space** is an area which is enclosed. It is not designed for people to go into. It may be hard to get in and out of because of a small or blocked entry/exit.

There is a risk in a confined space with one or more of these dangers:

A dangerous level of oxygen concentration outside the safe oxygen range.



A concentration of airborne contaminant (such as gasses, vapours or dust) that may cause impairment, loss of consciousness or asphyxiation.



A concentration of flammable airborne contaminant that may cause injury from fire or explosion.



Engulfment in a stored free-flowing solid or a rising level of liquid that may cause suffocation or drowning.



35. Question: What is a confined space?

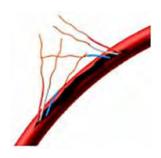
Answer:			

36. Question: Can you go into a confined space if there is a confined space sign nearby?

Answer:

37. Question: You don't need training to enter a confined space. Is this true or false?

Answer: .....





# **Electric power tools**

Take action if you find a power tool with a damaged lead. You should:

- remove it from use
- report the damage to your supervisor
- place an 'out of service' tag on it.

38. Question: If you found an electrical power tool with a damaged lead should you leave it where it is?

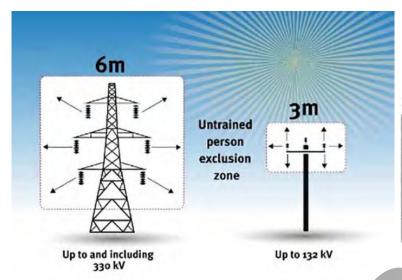
Answer:.....

Over 330 kV

# **Powerline distances**

### Powerline distances "Look up and live!"

Exclusion zones are the minimum safe distance from live power lines to reduce the risk of an electric shock. Working near powerlines can be fatal. Touching them or straying into the exclusion zone around them can result in a serious electric shock.



Power line voltage (1 kV = 1000 volts)	Examples	Exclusion zone
Up to 132 kV	Low voltage and high voltage powerlines usually on poles	3 metres
Between 132 kV and 330 kV	High voltage powerlines usually on poles and towers	6 metres

High voltage powerlines

usually on towers

8 metres

# **Avoid going into exclusion zones**

Make powerlines and poles visible. Ask your electrical entity for permission to paint power poles and/or have them install markers or flags on the powerlines.

Plan your work so tree branches do not fall across powerlines.

Where possible, use insulated or non-conductive tools and equipment.

Use a safety observer to make sure you stay well clear of exclusion zones.

Follow the safety advice you obtain from your electrical entity.

Although the following are the minimum safe distances, the best way to stay electrically safe is to maintain the greatest possible distance from powerlines.

# **Excavations including trenches**

Barricades, guardrails or fencing should be used to prevent access to excavations and to stop people accidentally falling in. Signs should also be put in place warning of the dangers.





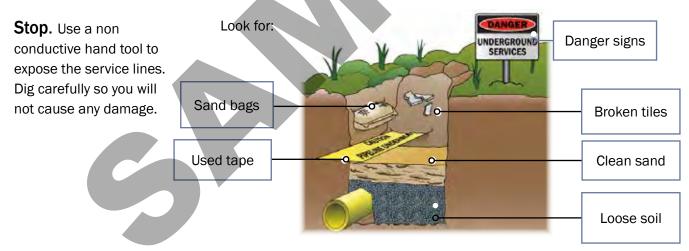
There are some cases where an excavation or a trench will need to be shored.

Shoring an excavation or using trench shields should be done whenever:

- the trench is more than 1.5 metres deep
- workers need to enter the excavation
- the ground is unstable and there is a likelihood the trench may collapse.



What should you use to excavate if you think there's an underground service nearby?



42. Question: Is ground collapse a hazard of trenches?

Answer:

43. Question: Is the possibility of falling into a trench a hazard?

Answer:

44. Question: You do not need to worry about underground services when working near a trench. Is this true or false?

# **Knowing the right PPE to use**

71. Question: Draw a line to match the right PPE with the hazard it can help protect you from. Answer:

Falling objects on your foot.



Object hitting or falling on your head.



When there is a chance of noise causing a loss of hearing.



When exposed parts of your skin might get sunburn.





To prevent cuts or burns on your hands.

# **SPEAKING - ORAL COMMUNICATION**



# Fire hose reels

Fire hose reels are designed to provide an accessible and controlled supply of water to fight a fire.

The length of a fully extended fire hose is 36 metres with a diameter of 19 mm (outside diameter). These appliances are designed to deliver at least 0.33 litres of water per second.

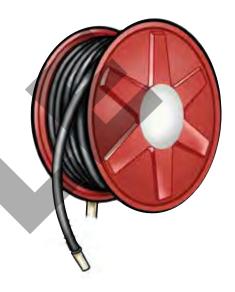
A control nozzle attached to the end of the hose enables the operator to control the direction and flow of water to the fire.

Australian Standards nominate installation and maintenance requirements.

These are some examples of fire hose reel signs:







## **Fire blankets**

Fire blankets are fire-resistant sheets of glass-fibre material.

They are used to cover a fire to cut off the supply of oxygen or to wrap a person whose clothes are on fire.







An example of a fire blanket sign

# **Breathing apparatus**

Breathing apparatus sets are breathing kits designed to give you clean, breathable air (from a tank).

They are designed for use in poor air due to low oxygen, smoke, gasses or contaminants.





An example of a breathing apparatus sign

# **Safety signs and symbols**

There are lots of different safety signs and symbols at any worksite. These signs are important because they can let you know if there is a hazard or if there are any special requirements on the worksite. You must follow any instructions on the signs — they have been posted to keep you safe.

Australian Standards for safety signs have standard colours, designs, shapes and sizes. These safety signs fit into four (4) different groups as shown in these tables.

Safety signs and symbols are instructions you MUST follow

1. Regulatory signs				
Description	Prohibition signs  White with a red circle with a line through it.  These signs tell you what you MUST NOT do.	Mandatory signs White with a blue circle containing an image. These signs tell you what you MUST do.	Limitation or restriction signs White with a red circle around a black image or number. These signs let you know of any restrictions in place.	
Example:	No smoking  No smoking	Safety helmet must be worn  SAFETY HELMET MUST BE WORN	Speed limit is 50 kilometres per hour <b>50</b>	

2. Emergency information		3. Fire signs		
Description	Green in colour  These signs identify directions to find exits, first aid facilities and equipment.	Description	Red in colour  These signs identify where to find fire-fighting equipment, alarms and exits.	
Example:	First Aid facility  FIRST AID	Example:	Fire extinguisher  FIRE EXTINGUISHER	

# PERSONAL PROTECTIVE EQUIPMENT - PPE















# **Fitting PPE**

Personal protective equipment (PPE) provides you with basic protection from hazards. It is not a guarantee that it will prevent injury, but it should help.

Your trainer will demonstrate the correct fitting of PPE. It will then be your turn to practise until you get it right.

You will be asked to demonstrate the correct fitting of the following:



If using safety glasses or goggles they must cover the eyes. They must sit on the bridge of the nose and the bent arms must fit around the ears.

eye protection (safety goggles or glasses)





If using ear plugs, the student must put an ear plug in each ear according to the manufacturer's instructions (e.g. roll ear plug in fingers; pull ear up and back; place ear plug in ear and release so that it expands). If using ear muffs, the student must place the muffs over their ears so that they are fully covered by the muffs and adjust the head piece where needed so that it sits close to the head.

hearing protection (ear plugs or earmuffs)



Fit and adjust the head harness where needed so that the hat is positioned comfortably, ie. it should not sit too high, it should be on straight and not backwards.

hard hat



The vest, shirt or jacket must be sized correctly, for example, not too tight or too loose. If using a vest it must be secured at the front.

• high visibility vest, shirt or jacket.