

RIICCM205F

Carry Out Manual Excavation

Learner Guide Instructions

Who is this document for?

The learner.

What is in this document?

- Course information that matches the PowerPoint presentation.
- Review questions.
- Practical assessment instructions for learners.

What do you need to do before you use it for the first time?

1. Rebrand the document.
2. Review the document as part of your validation process.
3. Set the reading and test time limits that are highlighted in pink at the end of the document.

See the 'Read Me First' document for a complete set of instructions on how to use these resources.

LEARNER GUIDE

RIICCM205F Carry Out Manual Excavation

| | |
|--------------------------|--|
| Learner Name: | |
| Learner ID: | |
| Learner Contact Number: | |
| Learner Email Address: | |
| Date Training Commenced: | |

This Book Contains:

- Course Information.
- Review Questions.
- Practical Assessment overview and instructions.

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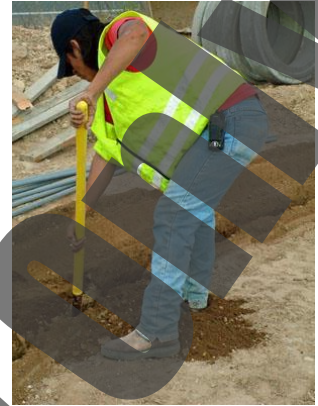
Evaluation Component

1.1 Introduction

This course is based on the unit of competency **RIICCM205F Carry Out Manual Excavation**.

In this material we will be looking at:

- ◆ Preparing for work and the tasks that are done before starting.
- ◆ Digging small excavations by hand with the appropriate tools and equipment.
- ◆ Completing and isolating the excavations.
- ◆ Cleaning up the area once excavation work has been completed.



1.2 Working Safely

You must follow all safety rules and instructions when performing any work. If you are not sure about what you should do, ask your boss or supervisor. They will tell you what you need to do and how to do it in a safe way.



1.2.1 Health & Safety Rules

Every workplace has to follow laws and rules to keep everyone safe. There are 4 main types:

| | |
|-----------------------------|-------------------------------------------------------------------------------|
| Acts | These are laws that you have to follow. |
| Regulations | These explain what the law means. |
| Codes of Practice | These are instructions on how to follow the law, based on industry standards. |
| Australian Standards | These tell you what the minimum requirement is for a job, product or hazard. |

Some states use OHS laws, and other states use WHS laws. They both talk about the same thing, but use different words or names for people. If you have any questions about safety rules you should talk to your boss or supervisor.

1.2.2 Operations Documentation

Before starting your work you need to make sure you have access to all operations documentation for the job. This will help you to do your work in the safest way and make sure all work is compliant.

Operations documentation includes:

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Details | The information and safety requirements of the workplace environment (where you will be working). |
| Hazard Details | Any hazards in the work area or related to the work. This could also include instructions on how to handle dangerous or hazardous materials. |
| Task Details | Instructions of what the work is or what you will be doing (this can include diagrams or plans). Also instructions on how to safely do the job. |
| Faulty Equipment Procedures | Isolation procedures to follow or forms to fill out. |
| Signage | Site signage tells you what equipment you need to have, or areas that are not safe to be in. |
| Emergency Procedures | Instructions on what to do in emergency situations, for example if there is a fire, accident or emergency where evacuation or first aid is needed. |
| Equipment and Work Instructions | Details of how to operate plant and equipment and the sequence of work to be done. |

1.2.3 How to Keep Everyone Safe

WHS law says that all companies and workers need to keep themselves and other people safe while they work. This is called a duty of care.

To keep yourself and other workers safe you need to:

- ◆ Follow your instructions.
- ◆ Follow all workplace rules.
- ◆ Make sure all equipment is safe to use.
- ◆ Carry out your work safely.
- ◆ Report any problems.



If you think something is dangerous tell your boss or supervisor as soon as possible.

Your worksite will also have instructions for working safely including:



- ◆ Emergency procedures (using fire fighting equipment, first aid and evacuation).
- ◆ Handling hazardous materials.
- ◆ Safe operating procedures.
- ◆ Personal protective clothing and equipment.
- ◆ Safe use of tools and equipment.

Review Questions

| | | |
|-----------|-----------------------------------------------------------|--------------------------|
| 1. | What are the 4 types of health and safety laws and rules? | <input type="checkbox"/> |
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |

| | | |
|-----------|-------------------------------------------------------------------|--------------------------|
| 2. | List 3 things that may be included in 'operations documentation'. | <input type="checkbox"/> |
| 1. | | |
| 2. | | |
| 3. | | |

1.3 Work Instructions

You need to be clear about what work you will be doing. Make sure you have everything about the job written down before you start. This includes what you will be doing, how you will be doing it and what equipment you will be using.



Make sure you have all of the details about where you will be working. For example:

- ◆ **The Site** – Is there clear access for all equipment? Are there buildings, structures, facilities or trees in the way? What are the ground conditions like?
- ◆ **The Weather** – Is there wind, rain or other bad weather? Is it too dark?
- ◆ **Facilities and Services** – Are there power lines or underground services to think about?
- ◆ **Traffic** – Are there people, vehicles or other equipment in the area that you need to think about? Do you need to get them moved out of the area? Do you need to set up barriers or signs?
- ◆ **Hazards** – Are there dangerous materials to work around or think about? Will you be working close to underground services or other people?

You also need to make sure you have all of the details about the kind of work you will be doing:

- ◆ **The Task** – What area is being excavated? How big will the excavation be? Does it need any special equipment?
- ◆ **Plant** – What type of plant will be used? How big is it? How much room does it need?
- ◆ **Communications** – How are you going to communicate with other workers?
- ◆ **Procedures and Rules** – Do you need any special permits or licences? Are there site rules that affect the way you will do the work?



1.3.1 Reading and Checking Your Work Instructions



All work needs to follow worksite, environment and company safety procedures.

Procedures help to make sure that all work is done in a safe way, without damaging equipment or putting people in unsafe situations. They also help to make sure that work is done in the correct order and doesn't interrupt or get in the way of other work that is happening on the site.

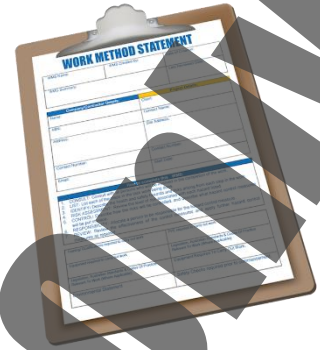
Your work instructions will tell you the safest way to do the job, and the equipment that you will need to use. It is a good idea to check your work instructions with your boss or supervisor to make sure you know exactly what you need to do.

If you don't know where to get your instructions or you can't understand them, you can ask your boss or supervisor. They will tell you where to find your work instructions and explain what they mean.

1.3.2 Work Method Statements

Many worksites require a work method statement before any work can start. A work method statement is a list of steps that outlines how a job will be done. It also includes any hazards that occur at each step, and what you need to do about them.

These statements can also be known as Safe Work Method Statement (SWMS), Job Safety Analysis (JSA) or Safe Operating Procedure (SOP).



1.3.3 Project Quality Requirements

Every civil construction project will have quality requirements. These outline when tasks need to be completed and the required standard of the work.



Your work instructions and plans or drawings will guide you, and help you to make sure you are achieving the quality standard for the project.

They can include:

- ◆ Project dimensions.
- ◆ Project tolerances.
- ◆ Standards of work.
- ◆ Material standards.

1.3.3.1 Plans, Drawings and Sketches

Some of your work instructions might be given to you in drawings and sketches. You will need to get the information out of these and use it to do your job.

Project plans and drawings give you an overview of the site, for example:

- ◆ Location of the site and earthworks in relation to the surrounding area.
- ◆ The position of structures, roads, access areas.
- ◆ Layout of drainage lines.
- ◆ Foundation details and landscaping features.

Depending on the project, drawings may be very detailed or they could be simple sketches.

You should learn about the conventions and symbols used in the plans and drawings so you can understand what the information means.



1.3.4 Safety Data Sheets

A Safety Data Sheet (SDS) is a detailed document outlining the risks and hazards associated with handling chemicals and other materials.

The SDS will contain details that can help you to identify:

| | |
|----------------------------------------------------|------------------------------------------------------------------|
| Basic Details of a Chemical or Material | Name, type and identification number. |
| Hazards Associated With use of the Material | Whether it is flammable or corrosive. |
| Safe Handling and Storage Procedures | PPE to use, sealed containers or storage temperatures. |
| Emergency Procedures | What to do if the chemical or material gets out of hand. |
| Disposal Procedures | Suggestions for removing the chemical or material from the site. |

The SDS will be issued by the manufacturer and may or may not include material handling methods.

Talk to your WHS representative or supervisor if you have any questions about legislative requirements relating to your work.



Review Questions

3.

What details about the work area can you get from your work instructions?

4.

What is a Work Method Statement?

5.

What details are outlined in project quality requirements?

6.

What details are outlined in Safety Data Sheets?



Evaluation Copy Only

1.4 Emergency Procedures

Emergency procedures will vary depending upon the worksite. These procedures could include:



- ◆ Evacuation.
- ◆ First aid.
- ◆ Fire fighting.

1.4.1 Evacuation

Things to remember are:

1. Keep calm.
2. Move away from the danger to a designated evacuation point, sometimes called an emergency assembly area.
3. Do not let other people into the area.
4. Call emergency services in accordance with workplace procedures and policies.



1.4.2 First Aid



First Aid is the quick care given to an injured or ill person. Every site will have a First Aid Officer.

If somebody needs first aid you must tell your supervisor or First Aid Officer. Do not try to give first aid if you have not been trained.

1.4.3 Fire Fighting Equipment

Fire fighting equipment on site could be anything from small fire extinguishers through to large water cannons. Different fire fighting equipment should be used for different types of fire. Always check the equipment for information on what type of fire it can be used on.

Steps for using a fire extinguisher:

1. Evacuate the area.
2. Isolate the area.
3. Call emergency services or other designated on site procedure.
4. If it is safe to do so use an extinguisher to attempt to control the fire using the PASS system.



The **PASS** system:

- P** Pull the pin.
- A** Aim at the base of the fire.
- S** Squeeze the trigger.
- S** Sweep the base of the fire.

Contact your site emergency management team as soon as possible and call the fire brigade on 000.

Review Questions

| | | |
|----|--------------------------------------------------------------------------------|--------------------------|
| 7. | What emergency situations are generally outlined in site emergency procedures? | <input type="checkbox"/> |
| | | |

1.5 Hazard Identification and Control

Before you start work, you need to check for any hazards or dangers in the area. If you find a hazard or danger you need to do something to control it. This will help to make the workplace safer.



1.5.1 Identify Hazards

Part of your job is to look around to see if you can find any hazards before you start any work.

A **hazard** is the thing or situation with the potential to cause injury, harm or damage.

When you start checking for hazards, make sure you look everywhere. A good way to do this is to check:

- ◆ Up high above your head.
- ◆ All around you at eye level.
- ◆ Down low on the ground (and also think about what is under the ground).



Some hazards you should check for in the work area:

- ◆ Other workers, vehicles and equipment.
- ◆ Pedestrians and public vehicles in the area.
- ◆ Underground services.
- ◆ Unstable or difficult ground conditions.
- ◆ Poor visibility – can you see others? Can they see you?
- ◆ Defective tools and equipment.
- ◆ Manual handling risks.

1.5.2 Control Hazards

After you have found hazards or dangers you need to work out how bad they are:

1. What is the chance that the hazard will hurt someone or cause damage?
2. If it does happen, how bad will the injury or damage be?





Thinking about these things will help you to choose how to control the hazards. Hazard controls need to follow:

- ◆ Legislation (laws).
- ◆ Australian Standards.
- ◆ Codes of Practice.
- ◆ Manufacturers' specifications.
- ◆ Industry standards.

The best way to control hazards is to use the Hierarchy of Hazard Control. The hierarchy of hazard control is a range of options that can eliminate, or reduce the risk of hazards.

You start at the top of the list and see if you can take away (eliminate) the hazard or danger.

If you can't take it away you move down the list to see if you can swap it for something safer (substitution).

Keep working through the list until you find something that controls that hazard or danger.



This table shows you the 6 different types of controls in order from best to worst:

| Hierarchy Level | Action |
|-----------------------------------------|---------------------------------------------------------------------------|
| 1. Elimination | Completely remove the hazard. This is the best kind of hazard control. |
| 2. Substitution | Swap a dangerous work method or situation for one that is less dangerous. |
| 3. Isolation | Isolate or restrict access to the hazard. |
| 4. Engineering Controls | Use equipment to lower the risk level. |
| 5. Administrative Controls | Site rules and policies attempt to control a hazard. |
| 6. Personal Protective Equipment | The least effective control. Use PPE while you carry out your work. |

Hazard control measures need to be put in place before you start your work, or as soon as you see a hazard while you are doing your work. Hazard controls can sometimes be listed in your work instructions or you can ask your boss or supervisor for help.

Once a hazard control is in place you will need to check to make sure it is working well to control the hazard or danger.

Talk to your supervisor or safety officer if you are not sure if it is safe enough to carry out your work. If you think the hazard is still too dangerous you should not try to do the work.

