

RIIERR301E

Respond to Work Site Incidents

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

RIIERR301E Respond to Work Site Incidents

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.

Table of Contents

1.1 Introduction	5
1.2 Site Policies and Procedures	5
1.2.1 Following Site Policies and Procedures	5
1.2.2 Applying Requirements and Procedures	6
1.2.3 How to Keep Everyone Safe	6
Review Questions	7
1.3 The Mine Safety Management Plan	8
1.3.1 Provisions of the Mine Safety Management Plan	8
1.3.2 Site Emergency Plans	9
1.3.3 Geological and Survey Data	10
1.3.3.1 Geological Data	10
1.3.3.2 Survey Data	10
Review Questions	11
1.4 Fitness for Operation	13
1.4.1 Evaluate and Maintain Fitness for Operation	13
1.4.2 Evaluating Personal Fitness for Operation	13
1.4.3 Maintaining Fitness Standards	15
1.4.4 Maintaining Other Competencies and Standards	15
Review Questions	16
1.5 Hazard Identification and Control	17
1.5.1 Identify Hazards	17
1.5.2 Possible Causes of Hazards	18
1.5.3 Control Hazards	19
1.5.4 Reporting Hazards	20
Review Questions	20
2.1 Conduct Call-Out and Assemble at Designated Point	23
2.1.1 Call-Out Procedures	23
2.1.1.1 Trigger Points	24
2.1.2 Assembly Procedures	24
2.1.3 Report to Incident Control	24
2.1.4 Confirm and Record Details	25
2.1.4.1 Contingency Planning	25
2.1.4.2 Maintaining Records	26
Review Questions	26
2.2 Identify, Access and Check Equipment	29
2.2.1 Incident Procedures and Equipment Selection	29
2.2.2 Types and Use of Equipment	30
2.2.2.1 Personal Protective Equipment	30
2.2.2.2 Breathing Apparatus	31
2.2.2.3 Escape Apparatus	33
2.2.2.4 Additional Required Equipment	33
2.2.3 Check Tools and Equipment	34
Review Questions	34
3.1 Plan Safest Route	38
3.1.1 Reading and Interpreting Mine Plans	38
3.1.1.1 Guidance Systems and Markers	38
3.1.1.2 Change-Over Stations	39
3.1.1.3 Escape Routes and Alternative Escape Routes	39
Review Questions	39

3.2 Evaluate Mine Atmosphere.....	41
3.2.1 Testing Equipment	41
3.2.2 Taking Atmospheric Readings	42
3.2.2.1 Temperature and Relative Humidity Testing	42
3.2.2.2 Air Measurement and Ventilation Readings	43
3.2.3 Communicating Readings.....	43
Review Questions	44
3.3 Communication Systems.....	46
3.3.1 Establish Communication Systems.....	46
3.3.2 Briefing Team Members.....	47
Review Questions	47
3.4 Team Numbers and Team Roles.....	48
3.4.1 Establish Team Numbers and Team Roles.....	49
3.4.2 Team Roles.....	49
Review Questions	50
3.5 Stand-By Team	51
3.5.1 Confirm Stand-By Team Availability	51
Review Questions	52
3.6 Pre-Operational Briefings.....	52
3.6.1 Receive Pre-Operational Briefing	53
Review Questions	54
3.7 Take Gas Measurements	54
3.7.1 Types of Mine Gasses	55
3.7.2 Gas Testing Equipment.....	55
3.7.2.1 Appropriate Use of Gas Testing Equipment	56
3.7.3 Testing Regimes	56
3.7.4 Sample Analysis	57
Review Questions	57
3.8 Commence Operations	60
3.8.1 Process for Commencing Operations	60
3.8.2 Operational Considerations	60
3.8.3 Rescue and Extrication Operations	60
3.8.3.1 Selecting Rescue and Extrication Equipment.....	61
3.8.4 Entrapment Procedures	62
Review Questions	63
Practical Assessment Instructions.....	65
Conditions of Assessment	65
Protective Personal Equipment (PPE) Requirements.....	65
Grounds for stopping the assessment	65
Achieving a Satisfactory Outcome.....	65
Practical Assessments	66

1.1 Introduction



This unit is based on the national unit of competency **RIIERR301E - Respond to Work Site Incidents**.

You will learn about:

- ◆ Evaluating readiness for incident response.
- ◆ Responding to incidents.
- ◆ Preparing for mine entry.

1.2 Site Policies and Procedures

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 Following Site Policies and Procedures

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

Hazardous Situation Operations documentation includes:



- ◆ **Site Details** – The information and safety requirements of the worksite environment, including the site layout and various landmarks.
- ◆ **Hazard Details** – Any known hazards in the area that you should be aware of. This could also include instructions on how to handle dangerous or hazardous materials.
- ◆ **Situation Details** – Instructions on what a hazardous situation is, and what you should be doing initially to respond to a hazardous situation (this can include diagrams or plans). Also instructions on how to keep yourself and other workers safe.
- ◆ **Emergency Procedures** – Specific instructions on what to do in emergency situations, for example where evacuation or first aid is needed.

Your worksite will also have instructions for working safely including:

- ◆ Handling hazardous materials.
- ◆ Safe operating procedures.
- ◆ Personal protective clothing and equipment.
- ◆ Safe use of tools and equipment.



1.2.2 Applying Requirements and Procedures



As these requirements can vary from state to state, company to company, and job to job, you are required to familiarise yourself with the documentation that applies to your work area and situation.

Working safely and effectively is your responsibility and ensuring those around you are aware of the requirements is another way of increasing your own safety level.

The procedures for your work should be applied from the planning level all the way through to the completion of the work.

In a hazardous environment such as a mine, you should also ensure:

- ◆ All materials, tools and equipment are properly maintained.
- ◆ All emergency access points are kept clear.
- ◆ Procedures and equipment are known and usable.
- ◆ Regular familiarisation is carried out for contingencies and emergencies.

To apply any of the requirements from any level (Acts, Regulations etc.) you must understand them. You need to be able to apply what is written relevantly to your work.

If you have any problems, difficulty or issues doing this, make sure you ask for assistance from appropriate personnel.



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.

All personnel have a legal responsibility under duty of care to do everything reasonably practicable to protect others from harm by complying with safe work practices.

Review Questions

1.

What are the four (4) instructions for working safely that your worksite will have?



1.

2.

3.

4.

2.

In a hazardous environment, what four (4) things should you ensure?



1.

2.

3.

4.

1.3 The Mine Safety Management Plan

The Mine Safety Management Plan (MSMP) is a requirement for all mines. Regulations specifically state what must and should be in the MSMP. The MSMP details all the factors that should improve safety and reduce risk for the mine operations.



1.3.1 Provisions of the Mine Safety Management Plan

All personnel and visitors on the mine site should be aware of the provisions of the MSMP.



The MSMP must contain:

- ◆ The WHS Policy for the site and its objectives.
- ◆ Arrangements for informing and training persons on WHS matters.
- ◆ Arrangements for supervision.
- ◆ Arrangements for communication.
- ◆ The management structure.
- ◆ How risks are to be managed.
- ◆ Arrangements for the safe use of plant and electricity.
- ◆ The contractor management plan.
- ◆ The emergency plan.



The MSMP must provide for:

- ◆ Exchanging information between shifts regarding hazards.
- ◆ Systems to communicate in the event of imminent risk.



In addition, underground mines will require:

- ◆ A system to record:
 - ◆ The name of persons underground.
 - ◆ Their probable location.
 - ◆ A voice communication system from surface to critical parts underground.

The MSMP should provide detail on:

- ◆ The site safety rules and arrangements.
- ◆ How every person that comes to the site will be informed of these rules.
- ◆ Arrangements for the control of documents and keeping of records.

The MSMP should state what arrangements are in place to:

- ◆ Use, distribute and control documents.
- ◆ Instruct persons in the use, distribution and control of documents.



The MSMP is to contain summaries of and references to each of the following:

- ◆ Mine health and safety regulations.
- ◆ Any WHS systems, policies, programs, plans and procedures.
- ◆ Any codes, standards or guidelines that apply.

1.3.2 Site Emergency Plans

Site emergency plans will cover a variety of scenarios and hazards and detail:

- ◆ Action to be taken.
- ◆ Location of emergency equipment.
- ◆ Location of emergency access points.
- ◆ Evacuation plans and procedures.
- ◆ Emergency notification contacts.
- ◆ Communication methods and protocols.
- ◆ Immediate survival actions and precautions.



1.3.3 Geological and Survey Data

Geological and survey data is used to guide you through a job. It tells you what the area is like, what things you will need to think about and where you will find hazardous formations.



1.3.3.1 Geological Data

Geological data gives you information about:

- ◆ Rock or material types and characteristics.
- ◆ Wet and dry areas.
- ◆ Water tables or other sources of water.
- ◆ Broken ground, faults or joints.
- ◆ Compaction levels.

All of this information will help you to decide on what equipment you need to use, where and how you should travel with equipment and areas to avoid.



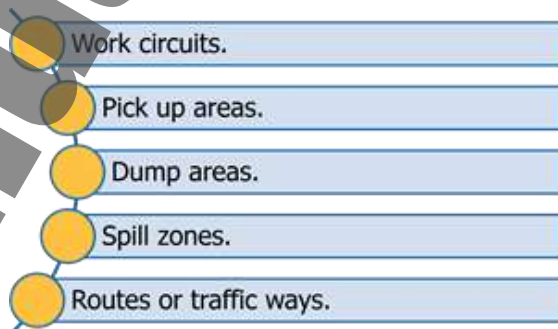
1.3.3.2 Survey Data



Survey data covers information about job outcomes including:

- ◆ Bench heights and widths.
- ◆ Floor heights.
- ◆ Floor, ramp and bench grades.
- ◆ Underground working and voids.

Survey data can also be used to mark out:



Review Questions

3.

What are four (4) things that must be contained in a Mine Safety Management Plan?



1.

2.

3.

4.

4.

What two (2) communication requirements are specific to underground mines?



1.

2.

5.

List four (4) details that will be covered by site emergency plans.



1.

2.

3.

4.

6.

What are four (4) things that geological data gives you information about?



1.

2.

3.

4.

1.4 Fitness for Operation

When working on any mine site it is essential that you are fit for duty. This is particularly important if you are responding to incidents within the mine site.



1.4.1 Evaluate and Maintain Fitness for Operation

Your fitness requirements and standards could relate to the following areas:

Fitness Standard	How it Relates
Fatigue Management	Fatigue can be a dangerous inhibiting factor. Fatigue will slow reaction times, cloud judgement and make the sufferer prone to emotional responses such as anger and irritation.
Set Physical Fitness Standards	Relevant to your role and operational activities.
Medical Health Standards	Relates to maintaining your general health and wellbeing. Requirements could include not attending work if unwell, and notifying supervisors of medications (both prescription and over the counter) that may impact your ability to undertake tasks.
Drug/Alcohol Standards	Could include abstaining from drugs or alcohol for set periods of time before a shift. Drug and alcohol testing is common practice in most mine sites.

As each site will have different requirements based on the roles within the mine, you must familiarise yourself with the requirements and standards relevant to your role, and for the site as a whole.

1.4.2 Evaluating Personal Fitness for Operation



Once you are aware of your operational fitness requirements you will need to evaluate how well you are meeting them.

This may include undergoing fitness testing activities, personal evaluation, subjective observation by others, or being assessed by a medical practitioner.

A medical assessment including a questionnaire and a medical examination should be conducted annually.

Participating in mine rescue competitions is a great way to ensure fitness requirements are maintain and also provides a valuable learning experience.

Fatigue is one of the leading causes of accidents for operators of all types of vehicles and equipment. Fatigue can be caused by:



Warning signs that you are suffering fatigue include:

Fatigue Signs	Symptoms
Physical	<ul style="list-style-type: none"> ◆ Slow reaction time. ◆ Tiredness, yawning or sore eyes. ◆ Headaches, stomach or other problems. ◆ Micro sleeps (nodding off for a short period of time).
Mental	<ul style="list-style-type: none"> ◆ Trouble concentrating and thinking clearly. ◆ Shorter than normal attention span. ◆ Boredom, irritability or lack of motivation.
Work	<ul style="list-style-type: none"> ◆ Poor or careless performance. ◆ Overlooking minor but potentially important details. ◆ Lower levels of communication and cooperation with others.

Fatigue risk is increased in emergency situations as they are high stress situation requiring physical work often in hot or humid environments.

1.4.3 Maintaining Fitness Standards

Your fitness and personal readiness will impact everyone on your team. If your fitness levels are not adequate for your operational roles within the mine site, you may need to:

- ◆ Speak with your supervisor and request alternative tasks.
- ◆ Seek training to develop your fitness levels to a point where you will be able to conduct your activities. This can best be achieved by speaking with a fitness coach with experience within the mining industry.



It is very important that fatigue is managed properly. Here are some ways you can manage fatigue:



1. Get enough sleep.
2. Drink plenty of water.
3. Take regular breaks.
4. Keep a healthy diet.
5. Keep a reasonable level of fitness.

Fatigue risk is increased in emergency situations as they are high stress situation requiring physical work often in hot or humid environments.

1.4.4 Maintaining Other Competencies and Standards

In order to maintain the required levels of personal readiness to perform your daily tasks, and to respond to incidents, your fitness is not the only aspect that should be maintained.

Other aspects of personal readiness that you must monitor and maintain will include:

- ◆ Training levels and competency standards for tasks you are undertaking.
- ◆ Knowledge standards – such as legislative changes, equipment updates or changes, operational or activity sequence changes.
- ◆ Organisational knowledge.

It is important that you remain aware of the competencies and standards that you must maintain in order to perform your role.



You may be able to evaluate your own learning and competency needs. Alternatively, you can speak to your site training officer who can help you identify your knowledge or competency gaps, and assist you in undertaking the appropriate training.