

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (The Committee).

Disclaimer

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

South Australian Work Health and Safety Legislation Guide

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South Australian Work Health and Safety Legislation Guide

AIM

This Guidance Material has been developed to provide an introduction to the Work Health and Safety (WHS) Legislation applicable to mining and quarrying operations in South Australia.

1. Work Health and Safety Legislation

In South Australia the Legislation governing work health and safety is the *Work Health and Safety Act 2012 (SA)* and the *Work Health and Safety Regulations 2012 (SA)*.

The Work Health and Safety Act and Regulations are supported by:

- Approved Codes of Practice;
- Mining Draft Codes of Practice;
- Australian / New Zealand Standards;
- International Standards; and
- Guidance Material.

Within the *Work Health and Safety Regulations 2012 (SA)*, there is a designated chapter (chapter 10), which details specific requirements for mines and quarries that are in addition to the general Work Health and Safety Regulation requirements.

Note: *Mining Draft Codes of Practice, available from SafeWork Australia, will be considered as guidance material in South Australia.*



Work Health and Safety Legislative Framework

1.1. **Work Health and Safety Act 2012 (SA)**

The *Work Health and Safety Act 2012 (SA)* provides a framework to protect the health, safety and welfare of all workers at work and of all other people who might be affected by the work.

The *Work Health and Safety Act 2012 (SA)* defines a range of “duties” for particular parties, which include, but are not limited to:

- **Primary Duty of Care;**
 - A person conducting a business or undertaking (PCBU) must ensure, so far as is reasonably practicable, the health and safety of workers engaged by the PCBU (employees), workers caused to be engaged by the PCBU (labour hire employees), workers whose activities in carrying out work are influenced or directed by the PCBU (contractors) and other persons (volunteers, visitors, etc.), are not put at risk from work carried out as part of the business or undertaking.
- **Duty of persons conducting businesses or undertakings;**
 - Involving management or control of workplaces;
 - Involving management or control of fixtures, fittings or plant at workplaces;

- That design plant, substances or structures;
 - That manufacture plant, substances or structures;
 - That import plant, substances or structures;
 - That supply plant, substances or structures; and
 - That install, construct or commission plant or structures.
- **Duty of officers;**
 - **Duties of workers;**
 - **Duties of other persons at the workplace;**
 - **Duty to consult with other duty holders; and**
 - **Duty to consult workers.**

Note: A duty **cannot** be transferred to another person, a person may have more than one duty and more than one person can have the same duty.

In addition the *Work Health and Safety Act 2012* (SA) stipulates the requirements for, but not limited to:

- **Incident notification;**
- **Consultation, representation and participation;**
 - Consultation, co-operation and co-ordination between duty holders;
 - Consultation with workers;
 - Health and Safety Representatives;
 - Health and Safety Committees; and
 - Issue resolution.
- **Reasonably practicable; and**
- **Offences and penalties.**

1.2. Work Health and Safety Regulations 2012 (SA)

The *Work Health and Safety Regulations 2012* (SA), state the way in which some duties under the *Work Health and Safety Act 2012* (SA) must be met and prescribes procedural or administrative requirements to support the *Work Health and Safety Act 2012* (SA).

This includes but is not limited to the following:

- **Authorisations;**
Registration and licensing for activities, such as asbestos removal and high risk work.
- **Workplace;**
Facilities, first aid and personal protective equipment.
- **Chemicals; and**
Lead, asbestos, labelling of containers, safety data sheets and major hazard facilities.
- **Other hazards.**
Plant, manual tasks, noise, work at heights, remote and isolated work, confined spaces and electricity.

In addition, Chapter 10 (Mines) of the *Work Health and Safety Regulations 2012* (SA) has specific requirements for mines and quarries.

The requirements of Chapter 10 (Mines) include:

- **Mine and mining operations;**
- **Mine holder / mine operator notification;**
- **Managing Risk;**
 - Control of risk;
 - Safety Management System;
 - Principal Mining Hazards and Principal Mining Hazard Management Plans;
 - Operational controls – all mines and underground specific; and
 - Emergency management.
- **Information, training and instruction;**
- **Health monitoring;**
- **Mine survey plan;**
- **Safety role for workers;**
- **Provision of information to regulator; and**
 - Mines specific notifications; and
 - Quarterly Reports.
- **Mine record.**

1.3. Codes of Practice

Approved Codes of Practice give detailed practical guidance on how to comply with requirements and obligations under Work Health and Safety Legislation. They are used in addition to the Act and Regulations and should always be followed, unless there is another solution which achieves the same or a better standard of health and safety in your workplace.

Codes of Practice:

- Are a tool to help PCBUs to meet compliance;
- Are admissible in court proceedings as evidence of whether or not a duty has been complied with; and
- Can also be referred to by an inspector when issuing an improvement or prohibition notice.

Approved Codes of Practice in South Australia are:

- Abrasive Blasting;
- Confined Spaces;
- Demolition Work;
- Excavation Work;
- First Aid in the Workplace;
- Hazardous Manual Tasks;
- How to Manage Work Health and Safety Risks;
- How to Manage and Control Asbestos in the Workplace;
- How to Safely Remove Asbestos;
- Labelling of Workplace Hazardous Chemicals;
- Managing Noise and Preventing Hearing Loss at Work;
- Managing the Risks of Plant in the Workplace;
- Managing the Risks of Hazardous Chemicals in the Workplace;
- Managing Electrical Risks in the Workplace;
- Managing the Risks of Falls at Workplaces;
- Managing the Work Environment and Facilities;
- Preparation of Safety Data Sheets for Hazardous Chemicals;

- Spray Painting and Powder Coating;
- Welding Processes; and
- Work Health and Safety Consultation Cooperation and Coordination.

Approved Codes of Practice are available from the SafeWork SA website.

Mining Draft Codes of Practice that are available from the Safe Work Australia website provide the same detailed practical guidance on how to comply with specific Work Health and Safety legislative requirements. However, in South Australia the Mining Draft Codes of Practice are considered to be guidance material.

1.4. Standards

Australian Standards (AS), Australian / New Zealand Standards (AS/NZS), International Standards (ISO) and other industry standards, provide guidance on many workplace activities, processes and procedures. Many of these standards relate to health and safety issues. These standards are seen as good guidance to providing a healthy and safe workplace, and should be followed.

Australian, Australian / New Zealand and International Standards are available for purchase from the SAI Global website.

1.5. Guidance Material

Other types of guidance documents also help duty holders comply with the law but differ from the authoritative advice of a code of practice by allowing duty holders wider discretion to choose the options that best suit their circumstances. Guidance material contributes to the overall state of knowledge regarding hazards, risks and controls and may be tendered as evidence in court proceedings.

2. Reasonably Practicable

Throughout the *Work Health and Safety Act 2012 (SA)* and *Work Health and Safety Regulations 2012 (SA)* you will see the phrase “so far as is reasonably practicable”. The *Work Health and Safety Act 2012 (SA)* defines “reasonably practicable” in relation to a duty to ensure health and safety as:

That which is, or was at a particular time, reasonably able to be done in relation to ensuring health and safety, taking into account and weighing up all relevant matters including:

- *the likelihood of the hazard or the risk concerned occurring; and*
- *the degree of harm that might result from the hazard or the risk; and*
- *what the person concerned knows, or ought reasonably to know, about:*
 - *the hazard or the risk; and*
 - *ways of eliminating or minimising the risk; and*

- *the availability and suitability of ways to eliminate or minimise the risk; and*
- *after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.*

3. Penalties

There are substantial penalties available to the courts for breaches of the *Work Health and Safety Act 2012 (SA)* or *Work Health and Safety Regulations 2012 (SA)*. Penalties are listed in three categories as detailed below:

Category 1 – For reckless conduct that exposes an individual to a risk of death or serious injury or illness that is engaged in without reasonable excuse.

Category 2 – Failure to comply with a health and safety duty that exposes an individual to a risk of death or serious injury or illness.

Category 3 – Failure to comply with a health and safety duty.

Duty Holder	Category 1	Category 2	Category 3
Individual worker or other person at the workplace	\$300,000 or 5 years imprisonment	\$150,000	\$50,000
Individual PCBU's or officers	\$600,000 or 5 years imprisonment	\$300,000	\$100,000
Body Corporate or Government body	\$3,000,000	\$1,500,000	\$500,000

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

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OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Work Health and Safety Policies Guide

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Work Health and Safety Policies Guide

AIM

This Guidance Material has been developed to provide you with an understanding of the requirements to develop and implement a Work Health and Safety Policy.

1. What is a Work Health and Safety Policy?

The Gage dictionary defines "Policy" as "a plan of action; a course or method of action that has been deliberately chosen and that guides or influences future decisions". By stating principles and rules, a Work Health and Safety Policy guides actions. A policy statement indicates the degree of an organisations commitment to health and safety.

Put simply, a Work Health and Safety Policy is a statement of commitment to health and safety at the workplace.

2. Why should I have a Work Health and Safety Policy?

It is a legislative requirement for all mines and quarries to have a documented Safety Management System. A Work Health and Safety Policy is the foundation of a Safety Management System.

Regulation 622 (1a) of the *Work Health and Safety Regulations 2012* (SA) states:

1) The Safety Management System document for a mine must set out the following:

a) the mine operator's health and safety policy, including broad aims in relation to the safe operation of the mine.

Aside from the legislative requirement, a Work Health and Safety Policy developed in consultation with workers can be a valuable asset to the organisation, as it reflects the culture and goals of everyone who works there.

3. Developing a Work Health and Safety Policy

To develop a useful and effective Work Health and Safety Policy, it is essential that there is consultation and discussion with workers. Just like all the other things related to health and safety, it is up to you how effective and useful the policy will be.

In addition, there is a legislative requirement for the Mine Operator to consult with workers.

Regulation 675R (a) of the *Work Health and Safety Regulations 2012* (SA) states:

For the purposes of section 49(f) of the Work Health and Safety Act 2012 (SA), the mine operator of a mine must consult with workers at the mine in relation to the following:

(a) the development, implementation and review of the Safety Management System for the mine.

A poorly developed policy can alienate workers, whereas one developed in consultation with workers, can help improve the overall commitment to making the workplace safe.

Sit down and discuss with your workers or their representative, why you have a Work Health and Safety Policy and what it includes (it is not just to meet the letter of the law!). Then give the employees some examples (such as the MAQOHSC Work Health and Safety Policy Template) and ask what they think needs to be included in the Work Health and Safety Policy for the workplace.

By using some of their words in the final document they will have some ownership, and this will help everyone work together as a team to develop and maintain a healthy and safe place to work in.

Remember, a Work Health and Safety Policy developed by management without workers input or ownership, may be seen as “just another piece of paper” by the people who really need to be involved.

4. What should be included in a Work Health and Safety Policy?

A Work Health and Safety Policy should clearly state the organisations Work Health and Safety objectives and demonstrate a commitment to improving Work Health and Safety Performance.

The Work Health and Safety Policy should:

- Be appropriate to the nature and scale of the organisations risks;
- Include a brief overview of the organisations location and operations;
- Include a commitment to comply with relevant Work Health and Safety legislation and with other requirements placed upon the organisation, such as Approved Programs for Environment Protection and Rehabilitation (PEPR) or Mining and Rehabilitation Programs (MARPs);
- Include a commitment to establish measurable objectives and targets to ensure continued Work Health and Safety improvement;
- Detail the responsibilities of Officers, Management, Supervisors, Workers and others in maintaining a safe and healthy workplace;
- State the importance of consultation and co-operation between management and workers for all Work Health and Safety matters;
- Be dated with date of implementation and date of scheduled review; and
- Be signed by the most senior person within the organisation. e.g. Chief Executive Officer.

The Work Health and Safety Policy must be:

- Documented, implemented, maintained and communicated to all workers;
- Be available to interested parties; and
- Be reviewed periodically to ensure it remains relevant and appropriate.

5. How do I communicate the Work Health and Safety Policy?

Once completed, the Work Health and Safety Policy needs to be made available to everyone on site, including contractors and visitors, so that they know there is a commitment to a safe and healthy workplace.

Part of a successful policy is ensuring that all workers are aware of it. If the workplaces plan for implementing the policy is a good one, employees will be reminded in their day-to-day activities, in safety meetings, and during the induction and training process.

A responsibility to adhere to the Work Health and Safety Policy may be part of the workers' position descriptions. Each worker, on commencing employment, may be given a copy of the policy and informed that it is a condition of employment to adhere to the policy.

The workplace can reinforce its commitment to the Work Health and Safety Policy by posting signs at the workplace, by writing articles about the policy in company newsletters, by referring to it in job manuals and so forth.

Each workplace will undoubtedly have its own way of keeping its workers informed. The important thing is to have a plan and to follow through on it.

Ways in which the Work Health and Safety Policy and responsibilities can be communicated include:

- Induction training;
- Policy and procedure manuals;
- Health and Safety Committees;
- Position descriptions;
- Notice board notices and reminders;
- Safety talks and meetings;
- Visitor inductions; and
- Ensuring the Work Health and Safety Policy is prominently displayed in a public area.

6. Reviewing the Work Health and Safety Policy

As stated in section 4, the Work Health and Safety Policy must be reviewed periodically to ensure it remains relevant and appropriate.

In addition, Regulation 625 of the *Work Health and Safety Regulations 2012* (SA), states:

- 1) *The mine operator of a mine must ensure that the Safety Management System for the mine is reviewed at least once every 3 years and as necessary revised to ensure it remains effective.***

- 2) In addition, if a risk control measure is revised under Regulation 38 or 618, the mine operator must ensure that the Safety Management System for the mine is reviewed and as necessary revised in relation to all aspects of risk control addressed by the revised control measure.***

As the Work Health and Safety Policy is an integral part of the Safety Management System, Regulation 625 applies. Whilst the Regulation states that the Work Health and Safety Policy must be reviewed at least once every three years, this is a minimum requirement and it is a recommendation that the Work Health and Safety Policy be review on a more frequent basis.

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REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Work Health and Safety Management Systems in Mining, Draft Code of Practice (Safe Work Australia)

AS/NZS 4804:2001 - Occupational health and Safety Management Systems - General guidelines on principles, systems and supporting techniques

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Work Health and Safety Policy Template

This policy recognises that *(insert company name)* is responsible for the health and safety of all workers in the workplace. In fulfilling this responsibility, *(insert company name)* has a duty to provide and maintain a working environment, so far as is reasonably practicable, that is safe and without risks to health and safety.

To meet the objectives of this policy, *(insert company name)* aims to ensure that it complies with its legislative obligations and is committed to continuously improving Work Health and Safety by:

- Providing a safe and healthy working environment and safe systems of work;
- Ensuring plant, equipment and substances are maintained in a safe condition;
- Implementing continual improvement strategies for risk management;
- Implementing improvement programs with objectives, targets and performance indicators;
- Providing processes for two-way communication and consultation between the Company and workers on Work Health and Safety matters; and
- Providing workers with the information, instruction, training and supervision to ensure their health and safety.

Officer duties and responsibilities:

- Gaining an understanding of the nature of *(insert company name)* operations and the hazards and risks associated with those operations;
- Ensuring a Work Health and Safety Management System is implemented and maintained;
- Acquiring and keeping up-to-date knowledge of Work Health and Safety matters;
- Ensuring that *(insert company name)* has available for use, and uses, appropriate resources and processes to eliminate or minimise risks to health and safety from work carried out as part of *(insert company name)* operations;
- Ensuring that *(insert company name)* has appropriate processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way to that information; and
- Ensuring *(insert company name)* complies with its legislative Work Health and Safety obligations and meets its Work Health and Safety objectives and targets.

Managers and Supervisors are responsible and accountable for:

- The effective implementation of this policy into work practices and communicate this policy to all workers, contractors and stakeholders and ensure all are aware of their Work Health and Safety responsibilities and obligations;
- Ensuring compliance with all *(insert company name)* policies and procedures;
- Monitoring workplace practices and conditions;
- Identifying, evaluating and controlling hazards within their area of control;
- Identifying the training needs of their workers, temporary staff and contractors, ensuring those needs are addressed, specifically in relation to the safe performance of their assigned duties and responsibilities; and
- Participating in injury management and return to work programs.

Workers have a duty to:

- Ensure the health and safety of themselves and others;
- Stop work if the work is not able to be conducted safely;
- Comply with the safe systems of work provided;
- Follow all reasonable instructions and directions;
- Not wilfully interfere with or misuse items or facilities provided in the interest of health and safety; and
- Immediately report all incidents, injuries, hazards, and near misses occurring at the workplace.

Contractors and Visitors must:

- Abide by *(insert company name)* safety policies and procedures;
- Not put themselves or any of our workers at risk; and
- Not enter restricted areas without permission.

Management seeks cooperation from all workers in achieving our health and safety objectives and creating a safe work environment.

.....
Chief Executive Officer / Managing Director

Date: / /

Review Date: / /

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Forward

On the 1st January 2014 there were changes to the *Work Health and Safety Regulations 2012* (SA) and Chapter 10 (Mines) was enacted. A major part of the requirements of Chapter 10 is Regulation 621 - Duty to establish and implement a Safety Management System. Regulation 621 states that a mine operator must establish and implement a Safety Management System for the mine and that the Safety Management System must be documented.

Let us examine what is a “Safety Management System” (SMS) and a “Safety Management Plan” (SMP).

Firstly, the Safety Management System is a key element of a comprehensive business management system designed to manage and control health and safety risks in the workplace. A Safety Management System provides a systematic way to identify hazards and control risks while maintaining assurance that these risk controls are effective.

The Safety Management System must be designed to be used by the Mine Operator as the primary means of ensuring:

- The health and safety of workers at the mine; and
- That the health and safety of other persons is not put at risk from the mine or work carried out as part of mining operations.

Note: *It is a requirement of Regulation 621, that the Safety Management System for the mine must form part of any overall Management System that is in place at the mine.*

Secondly, a Safety Management Plan is a document that sets out how your specific business manages its legal obligations to provide a healthy and safe place of work and safe systems of work. This is documenting your Safety Management System.

The key items that (as a minimum) must be included in the Safety Management Plan are:

- Work Health and Safety Policy Statement;
- Roles and Responsibilities in managing health and safety;
- Consultation methods (how the Person Conducting a Business or Undertaking (PCBU) and workers consult on safety issues);
- Hazard management and risk identification and control methods;
- Inspections and monitoring;
- Safe work procedures (sometimes called Job Safety Analysis (JSA), Safe Work Procedure (SWP), Safe Work Instruction (SWI), or Safe Work Method Statement (SWMS); and
- Accident and return to work processes.

This Work Health and Safety Management Plan template will assist and guide you through developing your site specific Work Health and Safety Management Plan.

Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation's structure.

1. Remove all ***“(insert company name)”*** sections and replace with registered business name
2. Remove all ***“(insert name of quarry/mine)”*** sections and replace with quarry/mine pit name.
3. Remove all ***“(insert senior management position e.g. site manager)”*** and replace with relevant position
4. Remove all ***“(insert location)”*** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all ***“Note”*** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Work Health and Safety Management Plan Template

*(Insert Company Name and Company
Logo or Site Photo)*

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1. Introduction

A Work Health and Safety Management System (WHSMS) describes how work health and safety can be maintained and working conditions continually improved. Establishing and observing a Work Health and Safety Management System properly also means effective observance of legislative requirements.

Safety at work is best ensured when it is a natural part of everyday working practices.

2. Purpose and Scope

This Work Health and Safety Management Plan (WHSMP) specifically describes *(insert company name)* Work Health and Safety Management System for all its operations.

Its purpose is to enable *(insert company name)* to provide a workplace in which all of its workers and contractors can work injury and illness free. Its scope includes the *(insert name of quarry / mine)*, and all operations owned or operated by *(insert company name)*.

3. Company Overview

(insert an overview of your company)

In the first paragraph you will need to detail the company's trading name, if it is a partnership / joint venture, etc.

Paragraph two will detail your quarry / mines location, product/s mined, details of any processing of mined ore / product and details of any other leases held.

Note: *The description below is an example only.*

MAQOHSC Pty Ltd (MQ) is a mining company focusing on Copper and Gold, based in Fleurieu Peninsula, South Australia. MQ is a wholly Australian owned company formed in January 1988.

The Company's prime asset is the ABC Project, located 80km south of Adelaide in the Fleurieu Peninsula region of South Australia. It involves the open cut mining of copper / gold ore located in two separate Mineral Leases and two Exploration Licences. We produce heavy mineral concentrate which is separated to produce copper and gold concentrate. MQ also holds an exploration tenement portfolio covering over 11,000 km² within the Fleurieu Peninsula region in South Australia.

4. References

Work Health and Safety Act 2012 (SA)
Work Health and Safety Regulations 2012 (SA)
Mines and Works Inspection Act 1920 (SA)
Mining Act 1971 (SA)
Dangerous Substances Act 1979 (SA)
Explosives Act 1936 (SA)
Electrical Act 1996 (SA)

Training and Skills Development Act 2008 (SA)

How to Manage Work Health and Safety Risks, Code of Practice (SafeWork SA)
Confined Spaces, Code of Practice (SafeWork SA)
Hazardous Manual Tasks, Code of Practice (SafeWork SA)
Managing Risks of Hazardous Chemicals in the Workplace, Code of Practice (SafeWork SA)
Managing Electrical Risks in the Workplace, Code of Practice (SafeWork SA)
Managing the Risks of Falls at Workplaces, Code of Practice (SafeWork SA)
Welding Processes, Code of Practice (SafeWork SA)
Work Health and Safety Consultation, Co-operation and Co-ordination, Code of Practice (SafeWork SA)
Roads and Other Vehicle Operating Areas, Draft Code of Practice (Safe Work Australia)

AS 2865:2009 - Confined Spaces
AS 2444:2001 - Portable fire extinguishers and blankets – Selection and location (fixed buildings)
AS 1851:2012 - Routine service of fire protection systems and equipment
AS 5062:2016 - Fire protection for mobile and transportable equipment
AS 1755 - Conveyors – Safety requirements
AS 4024:2014 - Safety of machinery (series)
AS 1788:1987 - Abrasive wheels
AS 1418.1:2002 - Cranes, hoists and winches – General requirements
AS 2550.1:2011 - Cranes, hoists and winches – Safe use – General requirements
AS 2550.5:2016 - Cranes, hoists and winches – Safe use – Mobile cranes
AS 1418.17:1996 (R2016) - Cranes (including hoists and winches) – Design and construction of work boxes
AS 1418.14:1996 - Cranes (including hoists and winches) – Requirements for cranes subject to arduous working conditions
AS 1179:1972 - Glossary of terms for rubber hose
AS 1180:1972 - Methods of test for hose made from elastomeric materials
AS 3791:1991 - Hydraulic hose
AS 1657:2013 - Fixed platforms, walkways, stairways and ladders – Design, construction and installation
AS 1892.1:1996 - Portable ladders - Metal
AS 2790:1989 - Electricity generating sets – Transportable (Up to 25kW)
AS/NZS 1576 - Scaffolding
AS/NZS 4576:1995 - Guidelines for scaffolding
AS/NZS 1841.1:2007 - Portable fire extinguishers – General requirements
AS/NZS 3000:2007 - Electrical installations (known as the Australian/New Zealand Wiring Rules)
AS/NZS 3007:2013 - Electrical equipment in mines and quarries – Surface installations and associated processing plant
AS/NZS 3012:2010 - Electrical installations – Construction and demolition sites
AS/NZS 2554:1998 - Hose and hose assemblies for air
AS/NZS 1869:2012 - Hose and hose assemblies for liquefied petroleum gases (LP Gas), natural gas and town gas
AS/NZS 3760:2010 - In-service safety inspections and testing of electrical equipment
AS/NZS 3010:2005 - Electrical installations – Generating sets

5. Leadership and Commitment

All Management shall provide a commitment to address Work Health and Safety issues and shall provide visible proactive leadership to achieve the highest attainable standards in the workplace, natural and local environments.

Note: *The Safety Management System must detail the management structure for management of Work Health and Safety at the mine including:*

- *Arrangements for filling temporary and permanent vacancies; and*
- *Requirements relating to acting positions in the structure; and*
- *The competency requirements for positions in the structure.*

(insert company name) shall ensure a commitment is sought from personnel that they commit to the same Work Health and Safety goals for the Project.

5.1 Work Health and Safety Policy

(insert company name) maintains an integrated Work Health and Safety policy that is appropriate to the nature, scale, complexity and location of the mining operations and the safety and health impacts of the Company's activities, products, services and commitments. The Policy is approved by the **(insert position and name of most senior person eg: Managing Director, Joe Bloggs)**. The Policy is available to all stakeholders and is on display in **(insert location)**.

5.2 Policy Review

The **(insert company name)** Work Health and Safety Policy shall be reviewed at least every two years.

5.3 Objectives and Targets

In order to ensure the effectiveness and continual improvement of the **(insert company name)** Work Health and Safety Management System, **(insert company name)** shall identify and implement measurable objectives and targets.

6. Legal Requirements

(insert company name) has a clearly defined ongoing responsibility and commitment to Workplace Health and Safety in accordance with relevant State Acts / Regulations, Mines Work Health and Safety Legislation, Codes of Practice and Guidelines. All **(insert company name)** workers / operations will abide / align with the minimum requirements of **(insert company name)** Work Health and Safety Management Plan and site Work Health and Safety requirements.

This Management Plan lists the minimum requirements to comply with Work Health and Safety targets and objectives of the projects undertaken so that all stakeholders may achieve a safe and healthy workplace.

The Work Health and Safety performance of *(insert company name)* shall be reviewed and audited on a regular basis against the requirements of this plan. Results of these audits shall be used to assess workplace health and safety performance and compliance in accordance with all statutory and *(insert company name)* requirements.

Information, consultation and instruction is seen by *(insert company name)* as the means of raising awareness of hazards in the workplace and reducing accidents and injuries. This Management Plan has been developed so that it may be used by all our workers.

7. Roles and Responsibilities

The areas of accountability and responsibility for all personnel are defined and documented below. These accountabilities and responsibilities define the minimum performance requirements of the specified roles and may be further detailed in position descriptions, appointment letters and individual procedures.

7.1 Duties

All parties involved with work of any nature have a responsibility for safety and health at work under Work Health and Safety legislation. Sound environmental management is also a legislative requirement. This includes the Person Conducting the Business or Undertaking (PCBU), Officers, Managers, Supervisors, Workers and others.

The primary duties under the *Work Health and Safety Act 2012 (SA)*, in broad terms, include:

- A Person Conducting a Business or Undertaking must ensure, so far as is reasonably practicable, the health and safety of workers engaged, or caused to be engaged by the person and workers whose activities in carrying out work are influenced or directed by the person while the workers are at work;
- 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;
- Workers must take reasonable care for his or her own health and safety;
 - Take reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons; and
 - Comply, so far as the person is reasonably able, with any reasonable instruction that is given by the person conducting the business or undertaking to allow the person conducting the business or undertaking to comply with the Act.

7.2 Officers

Section 27 of the *Work Health and Safety Act 2012 (SA)*, states that an officer of the person conducting the business or undertaking must exercise due diligence to ensure that the person conducting the business or undertaking complies with that duty or obligation.

Officers of *(insert company name)* must demonstrate due diligence by:

- Acquiring and keeping up-to-date knowledge of Work Health and Safety matters;
- Gaining an understanding of the nature of *(insert company name)* operations and the hazards and risks associated with those operations;
- Ensuring that *(insert company name)* has available for use, and uses, appropriate resources and processes to eliminate or minimise risks to health and safety from work carried out as part of *(insert company name)* operations;
- Ensuring that *(insert company name)* has appropriate processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way to that information; and
- Ensuring that *(insert company name)* has, and implements, processes for complying with any duty or obligation *(insert company name)* under the *Work Health and Safety Act 2012* (SA). This includes:
 - Reporting notifiable incidents;
 - Consulting with workers;
 - Ensuring compliance with notices issued under the *Work Health and Safety Act 2012* (SA);
 - Ensuring the provision of training and instruction to workers about Work Health and Safety; and
 - Ensuring that Health and Safety Representatives (HSRs) receive their entitlements to training.

Note: *The term Officer under the Work Health and Safety Act 2012 (SA), means:*

- *A director or secretary of the corporation; or*
- *A person who makes, or participates in making decisions that affect the whole or a substantial part, of the business of the corporation; or*
- *In accordance with whose instructions or wishes the directors of the corporation are accustomed to act (excluding advice given by the person in the proper performance of functions attaching to the persons professional capacity or their business relationship with the directors or the corporation); or*
- *A receiver, or receiver and manager, of the property of the corporation; or*
- *An administrator of the corporation; or*
- *An administrator of a deed of company arrangement executed by the corporation; or*
- *A liquidator of the corporation.*

7.3 Managers / Superintendents / Supervisors / Team Leaders

Managers, Supervisors, Superintendents and Team Leaders represent the Person Conducting the Business or Undertaking management to ensure that safe systems of work are implemented in the workplace. Managers, Supervisors, Superintendents and Team Leaders are also workers and therefore must comply with the duties of workers.

Managers / Superintendents / Supervisors / Team Leaders must ensure so far as is practicable that a worker:

- Works safely and complies with measures and procedures required by the company in accordance with the *Work Health and Safety Act 2012* (SA) and their Regulations; and
- Wears or uses the personal protection clothing and / or equipment as required by the company.

Managers / Superintendents / Supervisors / Team Leaders must also:

- Instruct a worker about measures and procedures designed and provided to protect them;
- Take action immediately to correct unsafe work practices where appropriate;
- Ensure that adequate information is provided to workers;
- Take every precaution reasonable to protect workers from risks to harm;
- Ensure that health and safety representatives receive their entitlements to training; and
- Maintain and keep up-to-date the requirements of the Mine Record on behalf of the Mine Operator, including each report by the shift supervisor under Regulation 630.

The following activities should be built into the daily operations:

- Know, understand and consistently comply with and enforce *(insert company name)* health and safety policies and procedures;
- Instruct and supervise workers to ensure they know and follow safe work practices;
- Encourage and require workers to report hazardous acts and conditions (including near misses), assess and correct these hazards in an appropriate timeframe;
- Ensure that only authorised, competent and adequately trained workers operate vehicles, machines or equipment;
- Ensure workers are assigned the tasks they are competent to perform;
- Encourage workers to report incidents immediately and conduct an investigation as indicated in *(insert company name)* policies and procedures;
- Ensure appropriate training is provided to workers;

- Ensure that safety information, relevant to the workplace, is readily available to Health and Safety Representatives and workers;
- Conduct regular inspections of the area and take corrective action as required to eliminate and or minimise risk associated with identified hazards;
- Ensure equipment is properly supplied and maintained;
- Promote safety awareness to all workers;
- Conduct and record daily prestart meetings;
- Attend and participate in weekly toolbox meetings;
- Consult regularly with Health and Safety Representatives and workers on health and safety matters;
- Communicate to senior management any need for change or remedial action necessary in the Company to ensure a safe working environment;
- Ensure there is clear demarcation of all access ways, walk ways, storage areas and roads;
- Ensure all machine guarding is adequate, maintained and applied prior to energisation of any plant or equipment;
- Ensure that all hard barricading is adequate, maintained and installed around all penetrations;
- Ensure that all workers who are required to work at height are appropriately trained and comply with safe work procedures and applicable codes of practice;
- Ensure all signage is adequate, legible and maintained at all times;
- Participate in formal investigations of incidents that occur in their area of responsibility;
- Undertake weekly formal inspections of the areas within their immediate area of responsibility;
- Undertake daily inspection audits of workplaces under their control;
- Review all Job Safety Analysis' (JSA's) on their presentation and in the field;
- Ensure all relevant permits are in place prior to the commencement of work;
- Ensure a high standard of housekeeping is maintained at all times;
- Encourage near miss, and hazard identification reporting by all site personnel;
- Remove or isolate any hazard identified during daily work activities; and

- Immediately stop any “at risk behaviour” identified during daily work activities.

7.4 Elected Workplace Health and Safety Representatives (if in place)

Elected Workplace Health and Safety Representatives (HSRs) are responsible for the following:

- Inspect the workplace or any part of it at times agreed with the company, but at least once a month as per the workplace inspection schedule;
- Carry out any appropriate investigation into:
 - Accidents, work related injuries and
 - Dangerous incidents where there is an immediate or imminent risk of serious injury or serious harm to health of any person and
 - High potential incidents where similar risks could have occurred.
- Keep informed of the health and safety information provided by the company and liaise as necessary with the Work Health and Safety Regulators, departments and other private bodies;
- Immediately report to the company any hazard or potential hazard to which any person is, or might be, exposed at the workplace that comes to his or her notice;
- Report to the Health and Safety Committee for the workplace, any matters that he or she thinks should be considered by the Committee;
- Liaise and cooperate with the company on all matters relating to the health or safety of persons in the workplace; and
- Represent the workers regarding matters concerning the health and safety of persons in the workplace.

7.5 Work Health and Safety Committee

The functions and responsibilities of the Work Health and Safety Committee are as follows:

- Facilitate consultation and cooperation between the company and the workers of the company in initiating, developing and implementing measures designed to ensure the health and safety of workers at the workplace;
- Keep itself informed as to standards relating to health and safety generally recommended or prevailing in workplaces of a comparable nature and to review, and make recommendations to the company on the rules and procedures at the workplace relating to the health and safety of workers;

- Recommend to the company and workers, the establishment, maintenance and monitoring of programs, measures and procedures at the workplace relating to the health and safety of the workers;
- To keep in a readily accessible place any such information as is provided under the *Work Health and Safety Act 2012* (SA) by the company regarding the hazards to persons that arise or may arise at the workplace;
- To consider and make recommendations to the company as the Committee sees fit in respect of, any changes or intended changes to or at the workplace that may reasonably be expected to affect the health safety or of workers at the workplace;
- To consider such matters as are referred to the Committee by a Health and Safety Representative; and
- To perform such other functions prescribed in the *Work Health and safety Regulations 2012* (SA) or given to the Committee, with its consent, by the employer.

Note: *These additional functions, as they arise, should be incorporated into this Safety Management Plan.*

7.6 All Personnel

All personnel are responsible for actively promoting Work Health and Safety and complying with the **(insert company name)** Work Health and Safety Management System. Specific Work Health and Safety activities that all personnel shall participate include, but may not be limited to:

- Attend pre-start meetings;
- Conduct pre-start tasks;
- Attend safety presentations and weekly toolbox meetings;
- Report all hazards and near misses;
- Report all incidents, including injuries;
- Ensure incident sites are preserved;
- Participate in safety initiative programs;
- Participate in fitness for work testing as requested;
- Assist in achieving the Company's Work Health and Safety Management Systems objectives and targets;
- Participate in the development of work instructions and job safety analysis and comply with these;

- Adhere to all permit requirements;
- Remove or isolate any hazard identified during daily work activities; and
- Immediately stop any “at risk behaviour” identified during daily work activities.

8. Information, Training and Instruction

All **(insert company name)** workers (including contractors) must participate in **(insert company name)** relevant Induction and Training Programs as set out in the **(insert company name)** Training and Induction policies, these include, but are not limited to: Site Safety Induction, Environmental Awareness, Emergency Management and Hazard Identification and Risk Management.

8.1 Site Induction

The induction process will ensure that all new workers are provided with a thorough induction to **(insert company name)**, a discussion of relevant policies and procedures that apply to workers and an overview of Work Health and Safety requirements.

It is therefore the responsibility of the **(insert responsible position eg: Site Manager, Work Health and Safety Advisor, etc.)** or their delegate representative to ensure that all new workers are provided with the necessary information and guidance so that they can perform in their respective positions safely, effectively, efficiently and in a manner consistent with the mission, vision and character of **(insert company name)**.

8.2 Training

(insert company name) has the capacity through established procedures and allocated sufficient resources, to identify and provide the training needs and assessment of competence of personnel on site.

(insert company name) will:

- Identify training requirements during all stages of employment;
- Meet all training specified in licensing and compliance criteria as per regulatory mining approvals (i.e., the Program for Environment Protection and Rehabilitation (PEPR); *Mining Act 1971* (SA));
- Ensure that where required by legislation or Australian Standards such training is conducted by a Registered Training Organisation (RTO) e.g. High Risk Work Licences such as forklifts;
- Implement a plan to ensure all workers attend relevant task training;
- Maintain documented records of training and assessment;

- Have approved training relevant to the work being performed; i.e. Working at Heights, Isolations and Confined Space,
- Ensure Work Health and Safety information is regularly circulated on site via pre-start and toolbox meetings, notice boards, etc; and
- Provide documented evidence that all personnel have been assessed by *(insert company name)* or the *(insert company name)* representative as competent to safely carry out their assigned tasks.

8.3 Competency Assessment

No person shall be granted approval to work on site until evidence of relevant licences, and qualifications have been provided to *(insert company name)* where requested. Evidence of the relevant information shall be held in the *(insert company name)* site files linked to the Safety Management System.

The exception to the above rule is where an operator or other worker is undergoing authorised training in preparation for competency assessment, such as training for new plant. Training will be authorised by *(insert company name)* management personnel, and be subject to *(insert company name)* training and assessment procedures.

(insert company name) shall maintain records of pre-employment medical and alcohol and drug screening tests for all *(insert company name)* site personnel. Specific medical conditions that may require notification to local medical services in the event of an emergency shall be supplied to *(insert company name)*.

(insert company name) shall maintain up-to-date training records and competency assessments of all workers for the duration of the project.

8.4 Training and Competence Matrices

The Company maintains a Training and Competency Matrix which specifies the mandatory and recommended training and competence requirements for each individual position.

All Managers, Superintendents and Supervisors must ensure that their personnel are trained and competent in accordance with this matrix, prior to assigning work where such training and competencies are identified pre-requisites. All workers must complete the necessary training in accordance with this matrix.

9. Communication and Consultation

(insert company name) utilises a range of communication, consultation and reporting processes which are detailed below.

9.1 Elected Health and Safety Representatives (if in place)

In accordance with the *Work Health and Safety Act 2012* (SA), Health and Safety Representatives may be elected at the workplace. These elections must take place in accordance with the applicable Work Health and Safety legislation for that workplace.

For details refer to:

Work Health and Safety Act 2012 (SA), Part 5, Division 3 – Health and Safety Representatives.

9.2 Health and Safety Committee (if one is in place)

In accordance with the *Work Health and Safety Act 2012* (SA), a Health and Safety Committee may be established at the workplace.

For details refer to:

Work Health and Safety Act 2012 (SA), Part 5, Division 4 - Health and Safety Committees.

9.3 Pre-Start Safety Meetings

Pre-start safety meetings shall be held prior to commencement of each shift and as required during the course of a shift where personnel are transferred to a new task or location. All contractors and subcontractors shall attend and participate in the daily pre-start meeting.

Note: *Work Health and Safety Mines Regulation 630 refers to the duty of the mine operator of a mine at which more than 1 shift is worked each day must implement a system that ensures that, as soon as practicable at the commencement of each shift:*

- a) The Supervisor of each outgoing shift provides a written report to the supervisor of the incoming shift, in relation to the state of the mine workings and plant and any other matters that relate to work health or safety; and*
- b) The Supervisor of the incoming shift communicates the content of the report to the workers on the incoming shift.*

The Manager, Superintendent, Supervisor, Team Leader of the work group will discuss the following:

- Incidents, accidents and near misses from the previous shift;
- Safety matters from adjacent work groups / contractors;
- Safety matters relevant to the task, including recent or emerging operational hazards affecting the work group;
- Safety notices received;
- Outline the work task requirements;

- Work instructions for the task;
- Permit requirements; and
- Health and Safety issues raised by the workforce.

A record of the meeting with those who attended shall be maintained on a daily pre-start log sheet with a copy stored on / in the *(insert company name) (insert location)* to be made available to the relevant Supervision including any issues raised by the workgroup and the actions that will be taken by management to address those issues.

9.4 Toolbox Meetings

Toolbox meetings shall be held *(insert when eg: weekly, each Friday at 12.00pm, etc.)* and will be attended by all members of the work group. The tool box meetings will be conducted by the *(insert responsible position)*, or nominated delegate.

The objectives of toolbox meetings are to:

- Review the safety status in the work areas in particularly and the whole site in general;
- Discuss health and safety items which have not been resolved on a day-to-day basis;
- Discuss health and safety aspects of work planned for the next week;
- Discuss any proposed changes to the Safety Management Plan or procedures; and
- Discuss any topical or promotional health and safety items;

Typically such safety agenda items shall include, but are not limited to:

- Health safety or topic;
- Follow up items raised at previous toolbox meetings;
- Review of incidents / near miss reports;
- Items of general Work Health and Safety importance;
- Items of Work Health and Safety interest to the work group;
- Work Health and Safety Policy;
- Work Health and Safety initiatives and review of Job Safety Analysis; and
- Work Health and Safety Performance.

Minutes of toolbox meetings will be kept in a legible format and be available to all workers, with a copy stored on / in the *(insert company name) (insert location)*.

9.5 Work Health and Safety Information

Work Health and Safety information will be issued on an as needs basis and this information will be discussed at either pre-start meetings and / or toolbox meetings. This information will be issued in the form of:

- Memos on noticeboards or direct to each employee;
- Posters;
- Work Health and Safety bulletins;
- Monthly Work Health and Safety statistics; and
- Work Health and Safety alerts.

All issued Work Health and Safety information together with minutes of Work Health and Safety Committee Meetings (*if committee in place*) will be displayed on all Notice Boards in a timely manner.

All workers will be provided with timely access to an up-to-date copy of the *Work Health and Safety Act 2012* (SA) and *Work Health and Safety Regulations 2012* (SA) and the relevant Australian Standards, Australian / New Zealand Standards and Codes of Practice approved under applicable legislation and other guidelines or forms of guidance referred to in the legislation.

10. Contractor Management

Prior to mobilisation, the contractor shall be required to submit a Safety Management Plan which shall set out how the contractor intends to comply with legislative and **(insert company name)** requirements and the **(insert company name)** mine operator's Safety Management System for the mine. The Safety Management Plan shall be completed and endorsed by **(insert company name)** before work starts on site.

Note: *The mine Safety Management Plan must incorporate the control measures that will be used to control risks to health and safety associated with the contractor's work at the mine, including:*

- *How the contractor's Work Management System will be integrated with the Safety Management System for the mine;*
- *The process for assessing health and safety policies and procedures (including competency requirements) of the contractor and integrating them into the Safety Management System;*
- *The arrangements for monitoring and evaluating compliance by the contractor with the Work Health and Safety requirements of the Safety Management System;*

If the contractor is unable to provide an acceptable Safety Management Plan, then the contractor shall be required to implement and comply with this Safety Management Plan in consultation with **(insert company name)** management.

Note: *Further guidance and tools in relation to contractor management is available from the MAQOHSC website.*

Before work begins **(insert company name)** shall ensure all contractor personnel shall be given appropriate:

- Induction training;
- Orientation of the workplace; and
- Emergency procedure information.

It shall be confirmed that all tools and equipment to be used are in a safe condition. Contractors are to be treated in all aspects of Work Health and Safety (excluding workers compensation) as if they were **(insert company name)** employees.

Contractors who are engaged by **(insert company name)** are accountable to **(insert company name)** for carrying out their contracted work safely and in compliance with applicable regulatory requirements. They shall have in place appropriate systems and supervision.

(insert company name) accountability is to ensure that the contractor's Work Health and Safety duties are embedded in the contract and to use an audit process to ensure that the contractor carries out its Work Health and Safety duties in accordance with the contract and in line with applicable regulatory requirements.

11. Work Health and Safety Issue Resolution

All hazards, Work Health and Safety issues and complaints are to be reported as soon as practicable or by the end of the shift in which they occurred, to their direct Supervisor or the **(insert responsible position, eg: Work Health and Safety Advisor)**.

Should the matter remain unresolved, it will then be addressed between the workers' Health and Safety Representative (*if in place*), and their direct Supervisor.

If still unresolved, it will then be referred to the **(insert senior management position e.g. Site Manager)**.

If the issue is still unresolved, the Health and Safety Committee will be convened to assist in resolution.

If still unresolved, it will then be referred to **(insert senior most position)**.

All workers will be encouraged to discuss all Work Health and Safety matters with their direct Supervisor and any worker at any time in an informal manner; however Work Health and Safety issues must first be directed through the individual's direct Supervisor as per the steps set out in the above procedure which shall be communicated to workers in writing.

Where attempts to resolve a Work Health and Safety issue in the workplace are unsuccessful and the steps of the resolution procedure have been followed a worker may notify the Regulator, SafeWork SA for resolution by an Inspector.

11.1 Refusal to Work in Certain Circumstances

It is acknowledged that workers have a legal right to refuse work where he or she has reasonable grounds to believe that to continue to work where an immediate or imminent hazard would expose him or her or any other person to the risk of serious injury or serious harm to health.

Under these circumstances, the worker must also take the following immediate action:

- Immediately notify his or her Supervisor and any Health and Safety Representative for the workplace;
- Remain at the workplace until management has been notified and only leave the workplace if authorised by management (unless the hazard would expose the individual to the risk); and
- Carry out other work as prescribed by the employer whilst unable to perform their usual duties due to these circumstances.

11.2 Disciplinary Actions and Penalties

Non-compliance of Work Health and Safety requirements will result in disciplinary action. In the event of disciplinary action being taken, the following rules shall be followed with infringement documentation included on the individual's personnel file:

- First infringement – verbal warning given by the Manager, Superintendent, Supervisor;
- Second infringement – written warning given by the Manager, Superintendent, Supervisor; and
- Third infringement – Removal from the workplace by the Mining Manager and case referred to the General Manager.

Incidents involving but not limited to the following issues shall warrant escalation of the disciplinary procedure:

- Drug and alcohol abuse at the work site;
- Breaches of tagging and isolation procedures;
- Tampering with, misusing or damaging safety equipment;
- Theft;
- Any Work Health and Safety breach where blatant disregard, misconduct or neglect of duty of safety, health and welfare requirements is demonstrated;
- Bullying;
- Harassment; and

- Racial vilification.

Note: For this section reference will need to be made to your discipline procedure. Changes will need to be made to suit your particular discipline process.

12. Work Health and Safety Reporting (including Incident Reporting)

All *(insert company name)* workers and contractors shall ensure all hazards and incidents are reported at the earliest possible time, but at least within the shift in which the incident occurred. All incidents shall be reported to their direct Supervisor or the *(insert responsible role)* and then assessed to determine the level of the incident and hence the level of investigation that is required.

The investigation shall determine what happened and what needs to be done to prevent reoccurrence. The level of investigation each incident requires shall vary according to the severity and complexity of the incident.

Note: Where a Notifiable Incident occurs the person with management or control of the workplace has a duty to preserve the site until directed otherwise by an Inspector.

12.1 Notifiable Incidents - General

Under the *Work Health and Safety Act 2012* (SA), certain incidents are notifiable to the Regulator. The *Work Health and Safety Act 2012* (SA) describes a notifiable incident as:

- a) the death of a person; or
- b) a serious injury or illness of a person; or
- c) a dangerous incident.

A serious injury or illness is any injury or illness that requires a person to have:

- a) Immediate treatment as an in-patient in a hospital; or
- b) Immediate treatment for—
 - i. the amputation of any part of his or her body; or
 - ii. a serious head injury; or
 - iii. a serious eye injury; or
 - iv. a serious burn; or
 - v. the separation of his or her skin from an underlying tissue (such as degloving or scalping); or
 - vi. a spinal injury; or
 - vii. the loss of a bodily function; or

- viii. serious lacerations; or
- c) Medical treatment within 48 hours of exposure to a substance,

A dangerous incident is an incident that exposes a worker or any other person to a serious risk to their health and safety resulting from immediate or imminent exposure to:

- a) an uncontrolled escape, spillage or leakage of a substance; or
- b) an uncontrolled implosion, explosion or fire; or
- c) an uncontrolled escape of gas or steam; or
- d) an uncontrolled escape of a pressurised substance; or
- e) electric shock; or
- f) the fall or release from a height of any plant, substance or thing; or
- g) the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with the regulations; or
- h) the collapse or partial collapse of a structure; or
- i) the collapse or failure of an excavation or of any shoring supporting an excavation; or
- j) the inrush of water, mud or gas in workings, in an underground excavation or tunnel; or
- k) the interruption of the main system of ventilation in an underground excavation or tunnel.

As detailed in Section 38 of the *Work Health and Safety Act 2012* (SA), should a notifiable incident occur the **(insert senior management position e.g. Site Manager)** or designated person shall ensure the regulator is notified immediately after being made aware of the incident.

The initial notification shall be made to the SafeWork SA 24 hour Emergency Telephone number 1800 777 209.

Should the Regulator require written notification of the incident, the notification shall be made using the SafeWork SA Notifiable Incident Report Form, which is available from the SafeWork SA website at the following location: http://www.safework.sa.gov.au/uploaded_files/notification.pdf

12.2 Notifiable Incidents – Mine Specific

In addition to the above requirements, Regulation 675V and 699A of the *Work Health and Safety Regulations 2012* (SA) requires certain mining incidents to be reported to the Regulator.

Regulation 675V describes a mining incident as an incident (other than a notifiable incident described above) that:

- a) results in illness or injury that requires medical treatment; or

- b) is a high potential incident.

Medical treatment is the management or care of a patient including:

- the suturing of a wound; or
- the treatment of fractures; or
- the treatment of bruises by drainage of blood; or
- the treatment of second and third degree burns.

A high potential incident is an incident or event that would have been a dangerous incident under the *Work Health and Safety Act 2012* (SA), if a person were in the vicinity at the time when the incident or event occurred and in usual circumstances a person could have been in that vicinity at that time.

Regulation 699A requires the notification to the Regulator of the unplanned loss of control of heavy earthmoving machinery (including failure of braking or steering) at a mine. This type of incident is a dangerous incident.

Should a mine notifiable incident occur the **(insert senior management position e.g. Site Manager)** or designated person shall ensure the Regulator is notified immediately after being made aware of the incident.

The notification to SafeWork SA must be by the fastest means available and can be made by telephone, fax, email or other electronic means. If the notification is by telephone SafeWork SA may request that this is followed up in writing within 48 hours. Contact details for the notification of mining notifiable incidents are available on the Notifiable Incident and Mining Incident Report Form, which is available from the SafeWork SA website at the following location:

http://www.safework.sa.gov.au/uploaded_files/notificationMines.pdf

12.3 Notifiable Incidents – Electrical

All incidents resulting in the electric shock of a person are required to be reported to the Office of the Technical Regulator on 1800 558 811.

12.4 Quarterly Reporting

(insert company name) in accordance with Regulation 675W of the *Work Health and Safety Regulations 2012* (SA), shall report certain Work Health and Safety information (as detailed in schedule 24 of the *Work Health and Safety Regulations 2012* (SA)) to the National Mine Safety Database.

13. Document and Data Control

The **(insert responsible role)** is responsible for establishing, implementing and maintaining the procedures for controlling all relevant documents and data required by this Work Health and Safety Management Plan to ensure that:

- They can be readily located;
- They are periodically reviewed, revised as necessary and approved for adequacy by competent and responsible personnel;
- Obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against unintended use; and
- Archival documents and data retained for legal or knowledge preservation purposes or both are suitably identified.

All documentation and data shall be legible, dated (with dates of revision) and readily identifiable and be maintained in an orderly manner for a specified period. Procedures and responsibilities shall be established and maintained concerning the creation and modification of the various types of documents and data.

Work Health and Safety Management System documents referred to throughout this Management Plan are kept in the following locations:

(insert location of document storage, eg: electronic server, office files, etc.)

Personnel shall not use documents once they become obsolete and shall instead follow the revised or replacement documents.

14. Hazard identification

The identification of hazards in the workplace shall take into account:

- The situation or events or combination of circumstances that have the potential to give rise to injury or illness;
- The nature of potential injury or illness relevant to the activity, product or service; and
- Past injuries, incidents and illnesses.

The identification process shall also include consideration of:

- The way work is organised, managed, carried out and any changes that occur in this;
- The design of workplaces, work processes, materials, plant and equipment;
- The fabrication, installation and commissioning and handling and disposal (of materials, workplaces, plant and equipment);
- The purchasing of goods and services;
- The contracting and subcontracting of plant, equipment, services and labour, including contract specification and responsibilities to and by contractors; and
- The inspection, maintenance, testing, repair and replacement (of plant and equipment).

14.1 Corrective action

(insert company name) encourages and empowers all our workers and contractors to correct identified hazards and risks wherever possible, as soon as the hazard has been identified. If personnel identify a hazard in the workplace, and are able to correct the situation, they have an obligation to prevent potential harm where it is within their capacity to fix the hazard or risk of harm to others or the environment.

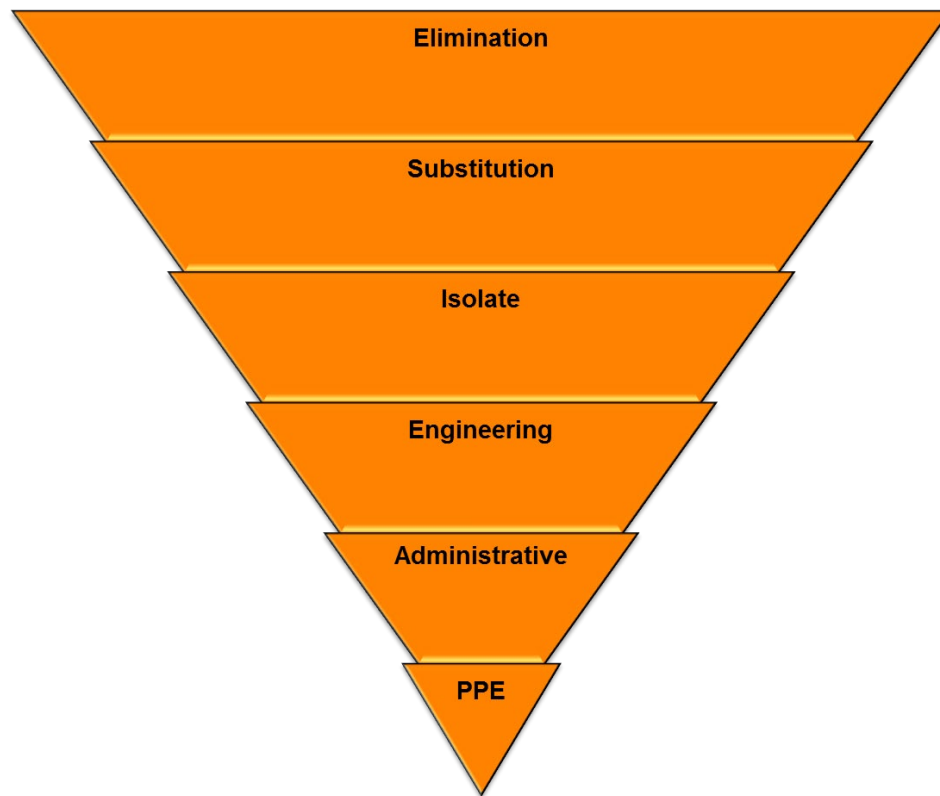
(insert company name) shall:

- Ensure all hazards, incidents and accidents, including near misses, are investigated fully and documented;
- Take corrective action to eliminate the cause of the incident or accident to prevent recurrence; and
- Review inspection and audit reports to identify areas of improvement.

For the purposes of this Safety Management Plan, an incident shall be taken as an incident involving harm or potential harm to any workers of *(insert company name)*, the contractor, community and / or the work environment, or where the physical wellbeing of a person, the community or the work environment has been placed at risk, e.g. a near miss.

14.2 Risk Assessment and Control

A Job Safety Analysis shall be developed by work teams prior to commencing any task that is not already covered by a procedure, or where a task varies from the standard safe work instruction. The Job Safety Analysis shall be used to list the specific job steps, identify potential hazards or risks associated with job step (including the immediate work environment). The Job Safety Analysis shall apply control measures that mitigate the identified risks (using the “Hierarchy of Controls” methodology) ensuring they are as low as reasonably practicable (ALARP), if the risks cannot be eliminated.



(Hierarchy of Controls)

Job Safety Analysis' shall be developed by the personnel conducting the task, signed by the work group and reviewed prior to commencing the task. The completed Job Safety Analysis shall be submitted to the work group's direct Supervisor, *(insert responsible role)* for review and approval.

14.3 On-The-Job Hazard Identification and Risk Assessment Techniques

- Safe Work instructions;
- Job Safety Analyses (JSAs);
- Take 2 / Hazard Identification Process;
- Daily Pre-Start Meetings;
- Pre-Task work place inspections; and
- Monthly workplace inspections.

Note: The above are suggestions only. This section will be required to be modified to reflect the systems used within your organisation.

15. Principal Mining Hazards (PMH)

(insert company name) shall identify Principal Mining Hazards associated with their mining operations.

In relation to each Principal Mining Hazard, **(insert company name)** must develop a Principal Mining Hazard Management Plan documenting how the risks to the health and safety of a person arising from the Principal Mining Hazard will be eliminated or minimised so far as is reasonably practicable.

(insert company name) must implement and maintain Principal Mining Hazard Management Plans.

The development, implementation and maintenance of each Principal Mining Hazard Management Plan must include the assessment and control of both the individual and cumulative effects of the Principal Mining Hazards.

(insert company name) must provide the relevant Principal Mining Hazard Management Plans to workers prior to them undertaking any work to which the Principal Mining Hazard Management Plan relates.

(insert company name) must provide the Principal Mining Hazard Management Plans to workers in plain, simple and understandable language.

Principal Mining Hazard Management Plans are available at / in **(insert location)**.

16. Mine Survey Plans

(insert company name) must ensure that an up to date Mine Survey Plan exists and that it is available for inspection.

The Plan shall be prepared by the **(insert responsible role, eg: Mine Manager, Surveyor, etc.)** and shall include, but is not limited to, the following:

- Mine workings;
- Location of electrical installations;
- Telecommunications;
- Dams;
- Natural features;
- Hydrocarbon storage; and
- Entry / Exit points, including Emergency Exits.

17. Inspections, Auditing, Monitoring and Review

(insert company name) shall conduct regular workplace inspections and maintain a schedule of the workplace inspections to be conducted and who is responsible for carrying them out.

The inspections shall be carried out using relevant standard workplace safety inspection checklist of **(insert company name)**, which shall be amended as required to address specific aspects of the mine site.

The corrective actions proposed shall be entered into the hazard register with responsible person named and due dates assigned.

17.1 Management and Supervision, Workplace Inspections

Managers / Supervisors shall ensure monthly inspections of the workplace are conducted by each of their respective work groups.

(insert company name) shall schedule and conduct regular inspections and compliance audits of:

- Work site Work Health and Safety conditions on a daily, weekly and monthly basis;
- Work methods;
- Individual daily tasks and behaviours; and
- Work Health and Safety Management System and Procedures.

17.2 Inspection and Testing

(insert company name) shall establish procedures for planning and conducting inspections of plant, equipment and processes including incoming plant, materials and products and use only suitably qualified and competent workers to carry out inspection and testing.

Site records shall be maintained of inspections and testing.

(insert company name) shall schedule regular inspections, as per Work Health and Safety Regulations, Codes of Practice, original equipment manufacturer (OEM) specification and industry standards on:

- Safety of materials and products;
- Temporary electrical installations and electrical equipment;
- Stationary plant and equipment;
- Rigging and lifting equipment;
- Scaffolding; and
- Cranes, light vehicles, elevating work platforms and mobile plant.

18. Work Health and Safety Hazard / Risk Management Programs and Strategies

18.1 Access and Egress from the Workplace

(insert company name) shall ensure that, where practicable, the means of access to and egress from the workplace enable persons to move safely to and from the workplace and are at all times kept free of obstruction.

18.2 Air Temperature

(insert company name) must ensure that work practices are arranged so that workers are protected from extremes of heat and cold and that if the workplace is in a building or structure that, as far as reasonably practicable, heating and cooling are provided to enable workers to work in a comfortable environment.

Note: Due to the nature of mining and quarrying operations this may not always be practical. If your workers are exposed to the extremes of weather you will need to develop a system to manage risks like heat stress or hypothermia and a relevant procedure stating different working arrangements during extreme weather events.

18.3 Alcohol and Other Drugs

(insert company name) has a zero tolerance to alcohol and other drugs.

The following prohibitions apply at all *(insert company name)* work sites:

- A person must not be in or on any *(insert company name)* premises while adversely affected by intoxicating liquor or drugs.
- Individuals may be directed to immediately leave the workplace if it is the opinion of the *(insert responsible role)* that an individual is adversely affected by intoxicating liquor or drugs. It is mandatory for an employee, contractor or visitor to comply with these instructions.

Should persons be taking prescribed medication that may affect their ability to operate equipment, it is a requirement of *(insert company name)* that the *(insert responsible role)* be notified.

18.4 Health Monitoring

(insert company name) will ensure regular monitoring of the health of persons working at the mine.

The monitoring may include the periodic provision of medical examinations for each worker working at the mine that is exposed or likely to be exposed to work health risks at the mine including risks due to air pollution, noise and vibration.

Any record of health monitoring will be retained for at least 7 years or until the worker leaves employment at the mine.

(insert company name) will arrange, if required, at the contractors expense any of the following medical examinations:

- The medical examination of persons who propose to work at the mine to establish their level of health before commencing work;
- The medical examination of persons who work at the mine to establish whether working at the mine is affecting their health; and
- The medical examination of persons ceasing to work at the mine to establish their level of health at that time.

18.5 Communication with Isolated Employees

If a worker is isolated from other persons because of the time, location or nature of work then the direct supervisor of that worker must ensure that there is a means of communication available which will enable the worker to call for help in the event of an emergency, and there is a procedure in place for regular contact to be made with the worker and the worker is trained in that procedure.

18.6 Fatigue Management

Fatigue can be the result from long work hours, shift work, travel, hot working conditions, overwork, insufficient sleep, insufficient relaxation time or stress (from work or home). **(insert company name)** understands that fatigue can be a significant risk to workers.

(insert company name) shall establish a Fitness For Work Policy that details the guidelines for managing the risks associated with fatigue.

Workers must advise their direct Supervisor before commencing work if fatigue may influence their ability to carry out their work safely. Workers shall be made aware of the symptoms and causes of fatigue and their responsibilities with respect to fatigue management through relevant training.

18.7 Psychosocial Hazards

Psychosocial hazards are interactions among job content, work organization, management, and other environmental and organisational conditions that may interact with the workers competencies and needs. Interactions that are 'hazardous' can influence a workers health through their perceptions and experience.

Below are possible psychosocial hazards:

- Job content;
- Workload and work pace;
- Work schedules;
- Control;
- Environment and equipment;

- Organisational culture and function;
- Interpersonal relationships at work;
- Role in the organisation;
- Career development;
- Home and work interface;
- Poor feedback, inadequate appraisal and communication processes;
- Performance visibility; and or
- Job insecurity, excessive work hours, bullying and managerial style.

(insert company name) shall establish policies and procedures that shall address psychosocial hazards.

19. Safety Standards – Work Area

(insert company name) shall maintain the following work area health and safety standards as a minimum requirement for work on site.

19.1 Compressed Air

The inappropriate use of compressed air may result in injury, when high pressure air is contacted with skin, eyes, or body (cavities, orifices); and exposure to dust and noise (particularly on mine sites).

The following prohibitions apply at **(insert company name)**:

- Before using a hose to transfer any compressed air, the person using that hose must ensure that all connections in the hose length are coupled and secured so as to prevent accidental disconnection.
- Compressed air must not be used for the purpose of cleaning a person's body or clothing.
- Compressed air must not be used for cleaning purposes in a workplace unless the appropriate personal protective equipment (PPE) is used as the compressed air is likely to generate dust.

The following safe work practices for use of compressed air in cleaning applications shall also be considered:

- An in-line pressure regulator complete with gauge should be installed to reduce a high mains supply pressure to a secondary working pressure of 210 kpa, when a single jet nozzle is used.

- Use alternative nozzles such as a multi-cut (star-tip) type nozzle capable of reducing contact pressure to 210 kpa, or those nozzles with an in-built pressure regulator which acts to prevent the outlet pressure from exceeding a maximum of 50 kpa. Note that the above nozzles are generally currently operated with supply pressure between 500 and 600 kpa.
- Work stations where compressed air nozzles are used require a dust extraction system to remove any dust generated during cleaning operations from the workplace atmosphere.
- Compressed air nozzles should not be used for removal of dust from a machine or clothing. A brush or vacuum cleaner should be used instead.
- Air nozzles should not be applied to generate mist or solvent droplets when used at a degreasing bath. Equipment being cleaned should not be hand held, and air jets are not to be deflected back to the operator.

Workers may not be aware of the potential hazards of compressed air. Clear and definite instruction regarding its safe use shall be included in training programs and signs warning of hazards and controls on use shall be displayed in each workplace where compressed air is used in the above applications.

19.2 Confined Space

(insert company name) must ensure confined space entry is conducted in accordance with the *Work Health and Safety Regulations 2012 (SA)*, *AS 2865:2009 - Confined Spaces* and the Approved Code of Practice – Confined Spaces.

(insert company name) shall ensure all persons undertaking confined space entry have received the appropriate training in accordance with the above requirements.

(insert company name) shall maintain a register of identified confined spaces in accordance with the above requirements. The confined space register is available at / in **(insert location)**.

19.3 Handling, Storage, Packaging and Delivery

(insert company name) shall establish procedures to ensure compliance with legislative requirements for handling, storage, packaging and delivery of products and materials.

(insert company name) shall:

- Establish a manual handling program to control manual handling hazards;
- Implement a procedure for the storage, labelling and use of hazardous substances which shall include a register, Safety Data Sheet (SDS) file;
- Screen new products and plant prior to entry onto site for Work Health Safety and Environment hazards; and
- All vehicle, plant and equipment operators are correctly instructed, trained and certified / licensed.

19.4 Hazardous Manual Tasks

(insert company name) must ensure that Hazardous Manual Tasks are identified and managed in accordance with the *Work Health and Safety Regulations 2012* (SA) and the Approved Code of Practice for Hazardous Manual Tasks. All workers shall be encouraged to report Hazardous Manual Tasks.

(insert company name) shall implement a Hazardous Manual Tasks Awareness and Control Program and ensure so far as practicable that mechanical means are substituted for all manual handling tasks.

19.5 Hazardous Chemicals

(insert company name) must set out its policy for the use, transportation, handling and storage of fuel and hazardous chemicals in accordance with the *Work Health and Safety Regulations 2012* (SA) and the Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace.

(insert company name) shall ensure that all hazardous chemicals and waste products are disposed of in accordance with applicable laws and regulations, or in the absence of any relevant law, regulation, code of practice or guidance note, in accordance with sound industry accepted safe practice.

19.6 Housekeeping

(insert company name) shall incorporate the housekeeping function into all processes, operations and tasks to ensure housekeeping is an integral part of these processes.

Material stored in open areas shall be stored in a tidy manner and in appropriate containers.

Aisles, walkways, corridors, doorways, entrances, exits, etc., shall be unobstructed, free from slippery hazards and the accumulation of combustible materials. Waste material and rubbish shall be removed from job site areas, on a continuous basis so as to prevent a build-up of rubbish and construction waste.

Objects such as sheeting shall be secured against movement from strong wind conditions.

19.7 Rubbish Collection

(insert company name) shall ensure suitable and adequate rubbish receptacles are supplied and strategically located throughout the workplace.

All bins used for food scraps shall have plastic liners, fitted lids, cleaned on a regular basis and shall be emptied daily.

19.8 Roads, Footpaths and Access Ways

(insert company name) shall:

- Be aware of vehicle / pedestrian interface issues and put systems in place to eliminate the potential for injury, particularly where it is necessary for vehicles and plant to reverse; and

- Ensure all restricted access areas are clearly identified and barricaded as required for both day and night conditions.

Note: Further information on roads, footpaths and walkways is available in the MAQOHSC Traffic Management Guide, available from the MAQOHSC website.

19.9 Access and Egress

(insert company name) shall ensure a safe means of access to and egress is provided in every workplace.

Ladders shall be secured and extend to at least one metre above the landing at an angle of 4:1.

19.10 Working at Heights

Where personnel are at risk of falling from height or being at risk from falling objects, **(insert company name)** must ensure effective measures are taken to prevent the potential of injury or damage.

All work at heights must comply with the *Work Health and Safety Regulations 2012* (SA), the Code of Practice for Managing the Risks of Falls at Workplaces and relevant Australian Standards.

Persons who are exposed to the risk of falling shall:

- Participate in the risk assessment of the work;
- Know and understand the control measures for fall and falling objects prevention;
- Be trained, competent and authorised in the correct use and application of control measures;
- Be medically fit to work at heights;
- Inform their supervisor if they have any medical condition (permanent or temporary) that may adversely affect their performance to work safely at height.

Effective control measures include:

- Eliminating the need for working at height by conducting the task on the ground if possible;
- The provision of edge protection (guardrails) systems;
- Fall prevention systems;
- The use of scaffolding and / or elevated work platforms to access work areas;
- A working at height's permit system;
- Training personnel who work at heights in the site requirements of safe working at height practices;
- Providing personnel with appropriate equipment and personal protective equipment for the task to be conducted.

The "Hierarchy of Controls" shall be used when considering any work methods and controls for working at height.

In all cases where the use of personal protective equipment is considered appropriate, fall restraint shall be considered as the preferred option rather than fall arrest.

19.11 Scaffolds and Scaffolding

(insert company name) shall ensure that all Scaffolding erection and dismantling complies with the requirements of AS 1576 - *Scaffolding* and AS 4576 - *Guidelines for Scaffolding*.

Scaffolding shall be controlled using the scaff-tag system and shall be inspected by a competent person and recorded in a scaffold register.

During erection scaffolders shall work from fully planked decks.

Scaffold erection and dismantling shall only be carried out by, or under the direct supervision of, certified competent scaffolders.

19.12 Fire Protection

(insert company name) shall supply, install, and maintain adequate portable fire extinguishers in workshops, site offices, plant, equipment, vehicles, construction areas and flammable storage areas.

(insert company name) shall ensure that all workers are instructed and trained in the basic inspection, safe use and operation of all relevant fire extinguishers types.

(insert company name) shall maintain records of inspection and maintenance of fire extinguishers for audit purposes.

(insert company name) shall ensure sufficient supply and regular maintenance of fire extinguishers is carried out in accordance with the Australian Standards listed in the table below.

Extinguisher Type	Australian Standard
Water Type	AS/NZS 1841 - Portable Fire Extinguisher – General Requirements
Foam Type	
Dry Chemical Type	AS 2444 - Portable Fire Equipment and blankets: Selection and Location (for fixed buildings)
Carbon Dioxide Type	
Mobile Equipment Fire Protection Systems	AS/NZS 1851 - Maintenance of portable fire extinguishers
	AS 5062 - Fire protection for mobile and transportable equipment

19.13 Radiation

Note: Delete this section if it is not relevant to your operation. The below content is an example only.

(insert company name) has been granted a Mining and Mineral Processing Licence (LM9) under Section 24 of the *Radiation Protection and Control Act 1982*.

The primary condition of this licence is compliance with the Commonwealth Code of Practice on Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing (2005).

A Radiation Management Plan has been prepared to comply with this Code and addresses the radiological health and safety issues presented by the production, handling, storage and transport of products and waste materials that are classified as radioactive under the Radiation Protection and Control (Ionising Radiation) Regulations 2000 for activities conducted on site.

The Radiation Management Plan also includes plans for the management of sealed sources held on site and for the conduct of Type C laboratory operations. The Radiation Safety Officer is responsible for the implementation of the Radiation Management Plan.

19.14 Smoking

Workplace exposure to passive smoking is a significant Work Health and Safety hazard. Smoking is banned in enclosed public places, workplaces or shared areas - *Tobacco Products Regulation Act 1997*.

Smoking is only permitted in designated areas and will not be tolerated outside of normal break times.

Note: It is your right as the Person Conduction a Business of Undertaking to introduce a smoke free policy, banning smoking on-site, should you wish.

It is **(insert company name)** policy that workers do not smoke at work in the interests of their own health.

20. Safety Standards – Plant and Equipment

20.1 Equipment Safeguarding

(insert company name) shall ensure that the risks associated with hazards arising from contact with plant and equipment are controlled in accordance with AS 4204 - *Safety of Machinery (series)* and AS 1755 - *Conveyors – Safety Requirements*.

The following general rules shall be implemented and followed by all personnel at **(insert company name)**:

- Access to equipment shall be controlled and monitored where safeguarding and interlock systems are insufficient to protect persons from moving plant and equipment;
- Fail-safe switches or devices shall be installed on all rotating fixed plant and hand tools (e.g. saws, lathes, drill presses, etc.) wherever practicable;
- Guarding shall be installed on all moving parts that pose a risk to health and safety, in accordance with AS 4024 - *Safety of Machinery* and AS 1755 - *Conveyors*;
- Guards shall only be removed for maintenance and repair, and only once equipment is isolated and locked out. Guards shall be replaced prior to equipment being put back into service;

- Procedures shall be in place for situations when safeguards on operating plant and equipment need to be removed temporarily for any purpose;
- A system shall be in place for the management of change to equipment and / or processes to ensure the integrity of safeguarding is maintained and to determine requirements for additional safeguarding; and
- No guarding shall be modified or altered in any way except through the application of a detailed risk assessment and management of change process.

20.2 Drills, Grinders and Buffers

Electric drills, grinders and buffers shall be in accordance with Australian Standards AS 3000 - *Wiring Rules*, AS 3007 - *Electrical Installations* and AS 3012 - *Electrical installations - Construction and Demolition Sites*. The selection, installation, construction, safe guarding, care and use of grinding wheels and buffers shall be in accordance with Australian Standard AS 1788 - *Abrasive Wheels*.

No person shall remove any safety guard device from a grinding or drilling machine unless the equipment is isolated in accordance with the isolation procedures.

Buffing, grinding and drilling operations produce airborne projectiles. Operators of such equipment shall protect themselves and others in the work vicinity by the use of personal protective equipment, the minimum being hearing and double eye protection.

No person shall operate grinder or buffer in a temporary work situation until the equipment has been levelled and securely anchored.

No grinder or buffer shall be fitted with any other cutting wheel, e.g. saw blade, polishing disc or pad, etc. than those recommended by the manufacturer.

20.3 Lifting Equipment and Winches.

The use of lifting gear and winches are governed by current safety legislation and Australian Standards:

- AS 1418.1 *Cranes, hoists and winches – General requirements*
- AS 2550.1 *Cranes, hoists and winches – Safe use – General requirements*
- AS 2550.5 *Cranes, hoists and winches – Safe use – Mobile cranes*
- AS 1418.17 *Cranes (including hoists and winches) – Design and construction of workboxes*
- AS 1418.14 *Cranes (including hoists and winches) – Requirements for cranes subject to arduous working conditions.*

Lifting gear includes, chain, rope, fastening, coupling, fitting, hoist block, stay, pulley, hanger, sling, brace, or movable contrivance of a similar kind, used or intended for use on or in connection with construction work.

Lifting gear shall be visibly marked in accordance with the relevant Australian Standards. Such markings shall be legible throughout the working life of the equipment.

Rigging and lifting equipment shall be inspected regularly by a competent person for the purposes of determining their suitability for safe use; this inspection shall be recorded in a rigging and lifting equipment register.

A qualified engineer shall approve non-standard manufactured lifting attachments. Non Destructive Testing (NDT) shall be carried out as required. All lifting attachments shall be included in all Lifting Equipment inspections.

All lifting gear shall be tagged, or otherwise identified as having undergone a 3 monthly inspection. The colour of lifting gear tags and / or identification will be in accordance with the Site electrical tagging colour codes listed in this Standard Specification.

Rigging and slinging must only be performed by qualified persons being a dogman or a rigger.

Fibre ropes shall not be used for crane lifting activities and when used for the temporary suspension of pipe work etc. shall be restricted. Consideration shall be given to hot work and plant processes and its effects on the rope.

The use of synthetic fibre slings is restricted and must be inspected by a competent person for defects each time before use.

All rigging gear shall be stored off floor level and away from hazardous substances.

20.4 Welding and Gas Cutting

When carrying out welding, cutting and grinding tasks **(insert company name)** is responsible for ensuring that when working in elevated areas, hot material is prevented from falling or entering any areas below or adjacent to the operation.

The minimum eye protection when carrying out the above operations shall be:

- All tasks - safety glasses fitted with side shields;
- Full welding face shield or approved welding shield which attaches to a safety helmet in areas where a risk of falling objects exists;
- Oxy cutting - oxy goggles with suitable lenses; and
- The use of double eye protection is required for all specified tasks.

20.4.1 Special Conditions for Welding, Cutting and Grinding

The following special conditions shall apply at **(insert company name)**, as may be relevant, for all welding, cutting and grinding tasks:

- Prior to the commencement of hot works outside of the workshop area, a permit must be obtained **(insert responsible role)**;

- Electric welding cables and gas welding / cutting lines in work areas, walkways and access ways shall be protected against physical damage at all times. Where possible, they shall be routed overhead or under elevated walkways, but in all cases routed in such a manner as to eliminate tripping or other hazards;
- Electrical welding and gas welding / cutting units are inspected and maintained in accordance with the relevant Australian Standards;
- Flashback arrestors to be fitted on the hand piece and cylinder end of oxy / acetylene hoses;
- Display appropriate signage when transporting or storing compressed or flammable gas;
- Keep electric welding cables and gas welding / cutting apparatus free from grease and oil.
- Worn or damaged electrical welding cables with exposed wire or bare conductors shall be replaced or discarded immediately;
- Suitable fire resistant screens are required when electric arc welding to ensure that adjacent workers are not adversely affected by the process;
- Locate fire extinguishers at all work locations where hot work is being undertaken, flammable gases are stored or on vehicles transporting flammable gas;
- Prior to the commencement of hot works, all combustible / flammable material shall be removed or adequately protected;
- Gas cylinders shall not be transported, raised or lowered to another work level unless an approved holder or carrier designed for the transport of gas cylinders is used;
- Cylinders shall be kept at a safe distance and shielded from welding at cutting operations and not be exposed to electrical circuits or heat;
- Opening keys shall not be modified nor extended and the key shall remain connected to the cylinder when in use;
- Acetylene and other fuel gases shall not be stored in enclosed spaces even overnight, e.g. vans, vessels or containers; and
- Voltage reduction devices (VRD) used with all electric welding machines.

20.5 High Pressure Water Equipment

(insert company name) shall ensure that only competent personnel experienced in the handling of the equipment being used shall carry out high-pressure water jetting operations.

The term 'high pressure water jetting' covers all water jetting systems including the use of additives or abrasives with an output capability greater than 800 bar per minute.

High pressure blasting areas shall be barricaded (red and white) and danger tape with information tags shall be erected.

Personal protection equipment suitable to the work being done shall be worn and shall include:

- Double eye protection - combination of visor and safety glasses;
- Foot protection - Wellington or safety boots with steel toecap;
- Head protection - safety helmet;
- Body protection - gloves and waterproof clothing having regard to the nature of work being done; and
- Hearing protection - ear plugs and / or ear muffs.

20.6 Compressed Air Equipment

(insert company name) shall ensure that only competent personnel experienced in the handling of the equipment being used shall carry out compressed air operations.

Personal protection equipment suitable to the work being done shall be worn and shall include:

- Eye protection - face shield and safety glasses with side shields or Mono-goggles;
- Foot protection - safety boots with steel toecap;
- Head protection - safety helmet;
- Body protection - gloves and clothing having regard to the nature of work being done; and
- Hearing protection - ear plugs and / or ear muffs.

20.7 Hoses – Air, Water, Hydraulic and Gas

All hoses shall comply with the relevant Australian Standards for Air (AS 2554), Rubber (AS 1179 and AS 1180), Hydraulic (AS 3791), Gas (AS 1869) and Welding and Cutting (AS 1335).

All hose connections shall be installed in such a manner to reduce the risk of a hose parting from the coupling or connections as follows:

- Safety clips and retainers shall be securely installed and maintained on pneumatic impact tools to prevent them from being accidentally expelled;
- Where two or more air hoses are joined, they shall not be used unless couplings / connections are fitted with approved safety pins / clips and hose clamps;
- Liquefied Petroleum Gas, butane, acetylene and oxygen, hoses shall be of an approved type, complying with AS 1335:1995 - *Hose and Hose Assemblies for Welding, Cutting and*

Allied Processes and AS 1869:2012 – Hose and Hose Assemblies for Liquefied Petroleum Gases (LPG), be easily distinguishable and shall not be interchangeable;

- High pressure service hoses shall be fitted with approved 'whip checks'; and
- All hoses to be inspected, repaired or replaced as required prior to each use.

20.8 Ladders fixed and portable

(insert company name) shall ensure all ladders comply with the relevant Australian Standards.

Fixed ladders shall comply with the requirements of Australian Standard *AS 1657:2013 - Fixed Platforms, Walkways, Stairways and Ladders – Design, Construction and Installation*.

Portable ladders (metal) shall comply with Australian Standard *AS 1892.1:1996 - Portable Ladders - Metal* **(insert company name)** shall ensure portable ladders are regularly inspected by a competent person and a register of such inspection is maintained and available at / in **(insert location)**. Ladders are required to be inspected for damage and integrity prior to use on any task. **(insert company name)** shall ensure that safe systems of work are developed and implemented for all ladder use.

Working from ladders shall comply with the following as a minimum acceptable standard:

- Personnel are not to be exposed to the risk of a fall from working on / off ladders;
- Personnel working from ladders must maintain three (3) points of contact at all times and / or be physically restrained from the risk of a fall (i.e. fall restraint personal protective equipment);
- Portable ladders when in use shall be secured, with rope or ladder clamps to prevent slipping or overbalancing;
- Ladders shall always be placed on a firm, stable footing to prevent the ladder feet from moving unexpectedly;
- Portable ladders shall be placed on a substantial base at a 1:4 pitch, have a clear access top and bottom and extend a minimum of one (1) metre above the egress landing; and
- Portable metal ladders and wire-reinforced ladders shall not be used for any electrical work or where contact with electrical conductors is foreseeable.

20.9 Portable Tools

(insert company name) shall ensure all portable tools conform to appropriate Australian Standards.

A portable tool is defined as any power tool (electric, pneumatic, hydraulic or fuel driven) that can be manually transported by one person.

Excessively worn tools and tools requiring maintenance shall be tagged and removed from the job site.

Electric power operated tools shall conform to relevant Australian Standards and in accordance with the manufacturer's instructions.

All portable tools shall be in good state of repair and safe for the user and other persons in the same area. They shall be used only for the task they were designed, and maintained in accordance with the manufacturer's instructions.

Guarding shall be used and maintained in accordance with manufacturer instructions.

21. Safety Standards – Electrical

(insert company name) shall ensure all electrical equipment selected for use complies with Australian Standards and is used, inspected and maintained in accordance with this Standard Specification.

(insert company name) shall ensure installation and testing of electrical equipment complies with *AS/NZS 3000:2007 - Electrical installations (known as the Australian/New Zealand Wiring Rules)* and *AS/NZS 3760:2010 - In-service Safety Inspection and Testing of Electrical Equipment*.

A portable and / or fixed Residual Current Device (RCD) shall be used to protect all electrical equipment. No portable generators are to be used on site without an inbuilt Residual Current Device.

(insert company name) shall ensure that only approved licensed electrical personnel carry out electrical installation, maintenance and testing on site. **(insert company name)** shall ensure all industrial electrical equipment, including office and crib appliances, are tested and inspected in accordance with *AS/NZS 3760:2010 - In-service Safety Inspection and Testing of Electrical Equipment* prior to use on Site. Records of such testing and inspection are maintained in / at **(insert location)**.

21.1 Testing

(insert company name) shall ensure inspection, testing and tagging of electrical equipment is carried out as follows:

- Daily Prestart (Users of any electrical equipment);
- Quarterly (all portable electrical equipment, portable tools, extension leads, generators, welders, fixed electrical plant and equipment as well as installations such as crib huts and workshops); and
- Yearly (Fixed and portable electrical equipment and appliances used in offices).

21.2 Tagging

Tag colours for quarterly testing are as per below:

January to March (red)	April to June (green)	July to September (blue)	October to December (yellow)
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Annual tagging: BLACK or WHITE (*AS/NZS 3012:2010 – Electrical Installations; AS/NZS 3760:2010 - In-service Safety Inspection and Testing of Electrical Equipment*).

21.3 Generators and Welding Machines

(insert company name) shall ensure all generators and welding machines used on site comply with the requirements of this Work Health and Safety Management Plan and are fitted with Australian Standard compliant Voltage Reduction Devices (VRD).

No exemption shall be granted from the requirement to use Voltage Reduction Devices on site, except in exceptional circumstances where the technical nature of the welding may indicate this as impractical. Exemption shall be requested in writing to **(insert responsible role)**.

21.3.1 Generators

This section covers portable, transportable or mobile generators including welding machines with auxiliary power outlets or terminals.

Self-contained transportable generating sets driven by internal combustion engines which are intended to provide an independent 50 Hz ac supply at above 32V ac, single phase or three phases, shall meet the following requirements:

- Comply with *AS 2790:1989 - Electricity Generating Sets – Transportable (Up to 25 kW)*, and *AS 3010:2005 - Electrical Installations –Generating Sets* with the additional features, as varied below. All live parts, including 'neutral' parts shall be guarded and insulated, including terminals at the back of the outlet;
- Single-phase windings shall have the neutral terminal connected to the earth terminal of the device as per Clause 6.19(b) and Figure 1 of Amendment No.1 of *AS 2790:1989 – Electricity Generating Sets – Transportable (Up to 25 kW)*. Three phase units shall have the star point of neutral connected similarly;

- All socket outlets providing non-welding power shall be weatherproof hi-impact polycarbonate or similar construction, with an isolating switch that operates in all live conductors;
- The single-phase outlets indicated above shall be protected by a residual current operated circuit breaker set to trip at a maximum earth leakage of 30 mA;
- Generators shall be inspected and tested by a licensed electrical worker and tagged in accordance with the tagging procedure and be protected from wet weather conditions at all times; and
- Earthing of generators must comply with manufacturer instructions and the requirements of *AS/NZS 3000:2000 – Electrical Installations (Wiring Rules)*. As required this shall include earth stakes buried to a depth of at least 600mm and sized in accordance with *AS/NZS 3000:2000 - Electrical Installations*, Section 5.5.1, unless specifically stated otherwise for safe operation of the generator.

21.3.2 Welding Machines

(insert company name) shall ensure all welding machines used on site are fitted with Australian Standard compliant Voltage Reduction Devices (VRD).

The location of welding machines shall be as close as possible to the work area, with the earth returns securely clamped as close as practicable directly to the area of the task or at minimum at a distance not exceeding 3 metres.

Welding machines shall be stopped or switched off before the connection or disconnection of leads to the machine terminals. All exposed terminals and wiring shall be insulated or covered.

21.4 Overhead Power Lines

(insert company name) shall ensure that any work required to be performed on or adjacent to overhead power lines is controlled.

The term 'adjacent to overhead power lines' shall be interpreted as Cranes, Plant and / or equipment entering within the 'Power Line Corridor' being a distance of 10 metres horizontal to the furthest exterior power line cable. Particular note shall be taken with crane booms or hooks which may luff or slew into the 'Power Line Corridor' area.

(insert company name) (insert responsible role) will issue a permit to work to allow access within the 'Power Line Corridor' area, within the limitations indicated in *AS/NZS 3000:2000 – Electrical Installations (Wiring Rules)*.

22. Environment

(insert company name) shall take note of and implement the controls detailed in relevant legislation and in line with **(insert company name)** Program for Environment Protection and Rehabilitation (PEPR) and Australian Standard requirements to ensure its activities do not create an adverse impact on the environment.

22.1 Commitment and Policy

(insert company name) shall take appropriate actions to protect air, water, animal and plant life from adverse effects of activities, and to minimise any nuisance which may arise from such operations, in accordance with all applicable laws and company environmental requirements.

(insert company name) shall ensure that personnel are trained and / or instructed to understand and comply with the **(insert company name)** policy on environmental protection and that personnel act accordingly.

22.2 General Environment and Conditions

(insert company name) shall work with all relevant Government bodies and stakeholders to ensure the work is carried out in such a way as to minimise impact upon the natural environment and comply with best principles and practices to:

- Minimise land disturbance in accordance with the Program for Environment Protection and Rehabilitation (PEPR) requirements;
- Protect native flora and fauna ecosystems and control the importation of weed species;
- Prevent pollution of any surface and ground water of natural origin and include provision of suitable equipment, facilities and precautions to prevent the discharge of contaminants which may pollute the atmosphere, any body of water, or land areas, or which may harm aquatic life or other wildlife;
- Minimise quantities of waste generated and determine its hazard rating and type;
- Recycle, re-use or recover resources from waste, as far as is economically feasible;
- Ensure adequate dust control;
- Minimise the generation of all noise to comply with the Program for Environment Protection and Rehabilitation (PEPR) requirements;
- Minimise land disturbance and restore to pre-disturbed condition wherever practical; and
- Ensure compliance with all laws, regulations and rules pertaining to the environment that are applicable to the Site.

22.2.1 Dust

(insert company name) shall implement effective dust control as far as is reasonably practicable to ensure no adverse impact to workers, the environment and the community.

The controls shall be regularly monitored for effectiveness and any rectification works are to be carried out as required.

(insert company name) shall ensure:

- Work practices are conducted in a manner to minimise airborne dust;

- Dust suppression measures are identified and implemented;
- A system for reporting excessive dust generation; and
- Vehicles and plant remain on defined and established roadways and work areas.

22.2.2 Waste Management

(insert company name) shall be responsible for ensuring that the handling, storage, treatment, transportation, and disposal of waste is executed in an environmentally acceptable manner and is in accordance with all applicable local government and statutory requirements.

22.2.3 Spillages

(insert company name) shall be responsible for providing and maintaining spill control and clean-up equipment. Spillages shall be controlled in the first instance and clean-up implemented as soon as possible.

All spillages shall be reported to the relevant authorities as per the *(insert company name)* Program for Environment Protection and Rehabilitation requirements.

22.2.4 Waste Disposal

(insert company name) shall be responsible for the removal from work areas of all construction and other debris and waste generated by its activities. *(insert company name)* shall provide sufficient rubbish receptacles and industrial disposal bins for collection of waste and ensure that all such bins are emptied on a regular basis to prevent overfilling.

Suitable collection equipment shall be provided by *(insert company name)* for the collection of flammable waste. Any hazardous substances shall be disposed of by *(insert company name)* in accordance with statutory requirements at licensed facilities.

All other waste shall be disposed of also in accordance with the requirements of any local government and statutory bodies and in according to:

- All rubbish being placed in closed containers – No Littering;
- Disposal and segregation of waste as per the Mining and Rehabilitation Plan; and
- Purchasing in bulk from suppliers to avoid excessive packaging waste.

22.3 Noise and Vibration

(insert company name) shall conform to the provisions of statutory requirements relating to noise control, with particular reference to drilling, blasting, abrasive blasting, excavation and earth moving plant, compressors and pumps, fabrication areas, workshops, batching and mixing plants and all other mining equipment, including vehicles.

(insert company name) shall comply with all provisions of the Program for Environment Protection and Rehabilitation relating to noise and vibration control when carrying out activities that cause noise and vibration.

22.4 Air Pollution

(insert company name) shall comply with the statutory requirements concerning air pollution. *(insert company name)* shall ensure that all activities on the site and activities undertaken by *(insert company name)* are designed and operated to control the emission of smoke, dust and other objectionable matter into the atmosphere and according to:

- Maintaining vehicles to minimise excessive air emissions as per Environmental and Mining Safety legislation.

22.5 Discharge of Liquids

(insert company name) shall take all the necessary precautions to minimise the impact of discharged water containing any matter in solution or suspension which may damage the environment, including, without limitation to, visible suspended matter into waterways and areas adjacent to the site.

(insert company name) shall take all precautions necessary to prevent the discharge into waterways of any oils or similar materials of any foaming or non-biodegradable liquids. All plant and equipment maintenance must be carried out in a suitably contained area, the draining from which shall be provided with approved oil separation traps before discharge. Contractors shall be responsible for regular removal of deleterious matter from such traps and its disposal in accordance with statutory requirements.

All oil or fuel spilt or leaking from any item of plant or equipment shall be cleaned up immediately, if necessary by excavation of impregnated soil and its removal to an approved disposal facility.

23. Community

(insert company name) shall ensure the following aspects are considered in the execution of the site activities to minimise the impact on the local community.

23.1 Concerns of the Local Community

(insert company name) shall take the following actions to ensure the community is considered throughout the life of the operation. The local community concerns include:

- safe driving and road courtesy by all;
- respect for the community and natural environment; and
- consideration of local people.

Note: *The above are suggestions only. You will need to identify and assess the possible local community concerns that relate to your particular location and operation.*

23.2 Road Safety

A major concern is road safety; this includes speed limits, road types (sealed / unsealed), road courtesy, and wet and dry weather conditions, on roads that have increased traffic.

Where Kangaroos and Emus are common in the area, care should be taken when driving particularly at dawn, sunset and at night.

Note: The above is an example only. You will need to identify and assess road hazards that relate to your location and operation. Refer to the MAQOHSC Traffic Management Guide for further assistance in relation to road safety.

23.3 Community Complaints

(insert company name) shall promptly advise the relevant statutory agency, in line with the requirements of the *(insert company name)* Program for Environment Protection and Rehabilitation of any community complaint, community unrest, protest or rumor or other community aspects.

23.4 Two Way Radio Use

(insert company name) shall ensure suitable communication systems are implemented to minimise the impact on the UHF two way radio systems used by the local community.

(insert company name) shall ensure that personnel use appropriate non-offensive language and prevent unnecessary general chatter on any two way channel.

The Ultra-high frequency (UHF) channel used at the *(insert company name)* site is *(insert applicable channel)*.

24. Office Safety

A proportion of the work undertaken by *(insert company name)* workers is conducted in an office environment and with this in mind *(insert company name)* staff will consider the following safety issues:

- Incorrectly set up workstations increase the possibility of posture related manual task injuries;
- Frequent or repetitive movements (typing for long periods) or holding uncomfortable postures for prolonged periods can cause Occupational Overuse Syndrome (OOS);
- Visual Display Units (VDUs) emit electromagnetic radiation which may cause tiredness of the eyes;
- All electrical circuits must be fitted with an Residual Current Device (RCD) and extension leads must be clear of access ways; and

- **(insert company name)** encourages personnel to report early symptoms of Occupational Overuse Syndrome and will provide ergonomically designed workstations.

25. Management Review

Senior management review of the **(insert company name)** Safety Management System will be performed **(insert time frame)** or sooner as required, to ensure the systems continued suitability, adequacy and effectiveness.

***Note:** The Work Health and Safety Regulations 2012 (SA), Regulation 625, states that the mine operator of a mine must ensure that the Safety Management System for the mine is reviewed at least once every 3 years and as necessary revised to ensure it remains effective” or sooner should a risk control be reviewed, such as in the event of an incident. The Work Health and Safety Regulations 2012 (SA) state a minimum requirement for review, ideally a review of the Safety Management System should be conducted annually to ensure its effectiveness.*

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au, or call 1300 551 832

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Hazard Identification and Risk Management Guide

Promoting Work, Health and Safety in the Workplace

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of WHS law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining & Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Hazard Identification and Risk Management Guide

AIM

The aim of this guidance material is to provide mine and quarry operators with an understanding of the principles of risk management, the processes for identifying workplace hazards and controlling their associated risks.

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1. Introduction

A Hazard is anything that has the potential to cause harm. Hazards can be associated with (but not limited to) a task, process, animal, plant and equipment, site design, location or environmental conditions. The Risk is the potential outcome of being exposed to a hazard.

All activities conducted by an organisation have some level of risk attached. Understanding and treating that risk is the key to providing a healthy and safe workplace for you and your workers; however it does not happen by any one person alone!

We all have a responsibility and a part to play when it comes to the management of hazards and risks; this includes senior management, workers, contractors and visitors.

Under the South Australian Workplace Health and Safety Act and Regulations 2012, a PCBU must ensure adequate resources have been provided and implemented to identify and manage workplace hazards and risks.

2. Definitions

Competent Person -	A person who has acquired through training, qualification or experience, the knowledge and skills to carry out the task
Hazard -	Something that has the potential to cause harm (injury or damage)
Hierarchy of Control -	A list of control measures, in priority order, that are used to eliminate or minimise exposure to a hazard.
Principle Mining Hazard -	Mining operations that have a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents
Risk -	The combination of the consequences of an event and the associated likelihood of the event occurring.
Risk Assessment -	The process of evaluating the likelihood and severity of harm arising from the potential exposure to a hazard.
Risk Control -	The process of eliminating or minimising the risk of harm
Risk Management Framework -	set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout an organization
Risk Management Process -	systematic application of management policies, procedures and practices to the activities of communicating, consulting, establishing the context, and identifying, analyzing, evaluating, treating, monitoring and reviewing risk

3. Risk management framework

The framework for risk management consists of the following areas:

- An organisations mandate and commitment to risk management,
- Designing framework for risk management,
- The implementation of risk management, and
- Monitoring, reviewing and the continual improvement of the framework

To implement an effective risk management framework and process, an organisation must first gain a strong commitment from all levels of management. Management must have “buy in” to ensure the process will be managed according to organisations policy objectives’ and procedures.

Through consultation and communication on legislative and organizational requirements, you should first understand and determine what the organisations objectives are and define, develop and implement a risk management framework which will achieve those objectives and provide the foundations and measures to manage risk through all levels of the organisation.

This is generally defined through a risk management policy which outlines the company’s intent for managing risk and how it relates with the corporate objectives and other organizational policies and procedures.

The policy identifies who is accountable and responsible for the management of risk and the organisations commitment to make available, resources to assist those accountable and responsible.

It also documents the way in which risk management performance will be reviewed and measured and how an organisation will show commitment to the continual improvement of the risk management process.

To support the policy requirements, procedures are generated to guide stakeholders in carrying out the policy objectives and the risk management process.

Procedures should define:

- Hazard identification and reporting process,
- When a risk assessment is required,
- Who is responsible for carrying out risk management processes and who is to be involved,
- How to conduct the assessment,
- The process for risk control,
- Responsibility for completion of any corrective actions,
- Timeframes for implementing those actions, and
- The process for monitoring and reviewing the effectiveness and continual improvement of risk controls.

Additionally, there should be communication and reporting systems established for internal stakeholders to support and encourage ownership and accountability and also a system for reporting to external stakeholder (legislative requirements).

An organisation should monitor and measure the performance of the framework and its processes to determine the effectiveness and where continual improvement can be made.

Resources allocated to the risk management framework evolve around people, skills, competence and experience along with documented processes, methods and tools to manage risk, information and knowledge requirements a training and development.

The risk management processes should comply with all legislative requirements and decision making in line with the risk management processes.

Throughout the implementation process, securing commitment from management and workers through consultation and communication is the key to a successful integration.

Note: to expand on the principles of risk management please refer to AS/NZS ISO 31000:2009 Risk Management - Principles and Guidelines and "How to Manage Work Health and Safety Risks, Code of Practice".

4. Who has duties in relation to Hazard Identification and Risk Management

A PCBU has the primary duty of care to ensure, so far as is reasonably practicable, that workers and other persons are not put at risk from work carried out as part of the business or undertaking.

A PCBU will have health and safety duties to manage risks if they:

- Engage workers to undertake work for them, or direct or influence work carried out by workers
- May put other people at risk from the conduct of their business or undertaking
- Manage or control the workplace or fixtures, fittings or plant at the workplace
- Design, manufacture, import or supply plant, substances or structures for use at a workplace
- Install, construct or commission plant or structures at a workplace.

All "Officers" of a PCBU are personally responsible (duty) for ensuring compliance with workplace health and safety laws. Officers must take reasonable steps to:

- Gain an understanding of the hazards and risks associated with the operations of the business or undertaking.
- Ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks to health and safety.

A duty imposed on a person to ensure health and safety requires the person to eliminate risks to health and safety, so far as reasonably practicable, and if it's not reasonably practicable to eliminate risks to health and safety, to minimise those risks so far as is reasonably practicable.

A person must comply with imposed duty to ensure health and safety to the extent that the person has a capacity to influence and control the matter.

Workers' have a duty and obligation to:

- take reasonable care his or her acts or omissions (actions or words), do not adversely affect the health & safety of other persons,
- comply, so far as the worker is reasonably able, with any reasonable instruction designed to protect their health and safety and, that of any other persons while at work,

- co-operate with any reasonable policy or procedure relating to health or safety at the workplace that they have been notified of,
- Managers, supervisors & team leaders are also deemed Workers. Duties are not transferable and a person can have more than 1 duty.

A mine operator must:

1. Identify all principal mining hazards (PMH) at the mine,
2. Conduct, in relation to each principal mining hazard identified, a risk assessment that involves a comprehensive and systematic investigation and analysis of all aspects of risk to health and safety associated with the principal mining hazard, and
3. In conducting a risk assessment under sub-regulation (2), must:
 - a. use investigation and analysis methods that are appropriate to the principal mining hazard being considered; and
 - b. Consider the principal mining hazard individually and also cumulatively with other hazards at the mine.

Note: The MAQOHSC principle mining hazard guide is available in the MAQOHSC resource manual and also on the MAQOHSC website - www.maqohsc.sa.gov.au

5. What is Reasonably Practicable

Reasonably Practicable in relation to a duty to ensure health and safety means that, which is, or was at a particular time, reasonably able to be done to ensuring health and safety. This includes, taking into account and weighing up all relevant matters about:

- the likelihood of the hazard or the risk concerned occurring;
- the degree of harm (injury or damage) that might result from the hazard or the risk;
- what the person concerned knows, or should reasonably know, about the hazard or the risk;
- ways of eliminating or minimising the risk; and
- Available ways of eliminating or minimising the risk, the cost associated, including whether the cost is grossly disproportionate to the risk.

6. What competencies are required and who is involved?

The person instructed with the task of undertaking / leading the hazard identification and risk assessment process should be a competent person and have good knowledge, experience and skills in hazard identification and the assessment of risk. Additionally, they should be able to apply the hierarchy of control when addressing / controlling different levels of risk.

A risk assessment must be undertaken in consultation with workers and their health and safety representatives (if any), who are involved in the task or process. This also includes consulting with the workgroups when identifying and controlling principal mining hazards and risks.

If there is more than one business or undertaking (eg, contractors) involved at your workplace you must consult them and their workers as part of the risk assessment process. It is often more effective to involve a team of people in the risk assessment process to draw on a range of knowledge and experience to ensure risks are eliminated or reduced so far as is reasonably practicable.

For the purposes of this guide, the following sections will focus on the risk management process of identifying, analyzing, evaluating, treating, monitoring and reviewing risk.

7. Identification of the hazards (Risk Identification)

The first step in managing risks to health and safety in the workplace is identifying hazards.

- Identify all regularly performed tasks / work along with any plant, equipment, substances and environment that is used or occupied.
- Systematically and visually observe each task being undertaken to determine if there are any hazards and document them.
- Ask your workers about any health and safety problems they have encountered in doing their work and any near misses or incidents that have not been reported.
- Worker surveys can also be used to obtain information about matters such as workplace bullying, as well as muscular aches and pains that can signal potential hazards.

8. Hazard Identification chart

Types of Hazards	Potential Harm
Hazardous manual tasks	Overexertion or repetitive movement can cause muscular strain and sprains, skeletal / disc injury.
Confined Spaces	Engulfed / crushed by a free flowing solid or liquid, asphyxiation / suffocation, explosive or contaminated atmospheres, low air concentration levels or poor air quality.
Explosives	Unintended explosion, struck by shockwave and fly rock, fractures, bruises, lacerations, dislocations, concussion, permanent injuries or death
Fire	Ignition source, chemical incompatibility, burns, smoke inhalation, asphyxiation, death
Gravity	Falling objects, falls, slips and trips, bruises, lacerations, dislocations, concussion, permanent injuries, crushed
Electricity	Fire or explosion, electrical shock, burns or death
Machinery and equipment	Being hit by moving a vehicle, burnt by hot or cold componentry, caught in moving parts of machinery, entanglement, nip and shear points, puncture, stab
Hazardous chemicals and substances	Chemicals (acids, hydrocarbons, heavy metals) and dusts (such as asbestos and silica) respiratory illness or disease, burns, cancers or dermatitis
Temperatures and Extreme weather conditions	Sun burn, heat stroke and fatigue, hypothermia or frost bite
Noise	Permanent hearing damage from repeated exposure to loud noise or instantaneous loud noise. Deafness

Radiation	Ultra violet light, welding arc flashes, micro waves and lasers can cause burns, cancer or blindness.
Biological	Micro-organisms can cause hepatitis, legionnaires' disease, Q fever, HIV/AIDS or allergies
Psychosocial hazards	Work-related stress, bullying, violence and work-related fatigue (such as low pay), discrimination, harassment, production pressure, boredom, lack of recognition, job overload, threats of violence, suicide.

Note: A general risk assessment and principle mining hazard risk assessment checklist tool is available in the MAQOHSC resource manual and also on the MAQOHSC website - www.maqohsc.sa.gov.au

Where a worker has identified a hazard through normal operational activities, they should take steps to eliminate the hazard within the area of their control and capabilities, only if safe to do so!

Where the elimination of the hazard is beyond their control, they should immediately report the hazard to their supervision and take steps to warn others of the hazard and cordon off or highlight the location of the hazard until it can be reviewed and addressed by supervision.

Provisions should be in place to allow the worker to record the hazard through an internal hazard reporting process via either a paper based or electronic system which will document the identified hazard and allow management to monitor its progress for close via the risk management process.

Note: A hazard reporting procedure template and hazard report form is available in the MAQOHSC resource manual and also on the MAQOHSC website - www.maqohsc.sa.gov.au

9. Review Available Information

Analyse your records of health monitoring, workplace incidents, near misses, worker complaints, sick leave and the results of any inspections and investigations to identify hazards. During an investigation process, a hazard can be the root cause that resulted in the incident or a contributing factor which lead to the incident.

If someone has been hurt doing a particular task, then a hazard exists that could hurt someone else. These incidents need to be investigated to find the hazard that caused the injury or illness

Note: An Incident investigation procedure and incident report form is available in the MAQOHSC resource manual and also on the MAQOHSC website - www.maqohsc.sa.gov.au

Manufacturers and suppliers also provide information about hazards and safety precautions for specific substances (safety data sheets), plant or processes (instruction manuals).

Other available sources of information and advice on hazards and risks associated with mining and quarrying can be obtained from the regulators, industry associations, unions, technical specialists, safety consultants and even outside Australia in similar industries and environments.

10. Assessing the risks. (Risk Analysis)

Assessing the risks will help the mine/quarry operator take the correct action to eliminate the risk or where this is not reasonably practicable, minimise the associated risks. Risk assessments include one or more of the following:

- A visual inspection of the task / work

- Formal documented risk assessment
- Discussions with designers, manufacturers, suppliers, importers, workers or other relevant parties
- Testing (noise levels) or measurement (silica levels)
- A review of incident of harm and near miss data

When assessing risk, consideration must be given to:

- The nature of the hazard.
- How it may impact on health and safety and how many workers are exposed.
- The amount, frequency and length of exposure.
- How the work is organised including the layout and condition of work environment.
- Training and knowledge.
- type and condition of control measures available

Additionally, hazard identification and the risk assessment process must be conducted when:

- Planning – projects, work or activities
- Designing, commissioning / de-commissioning
- Before the introduction of new work, activities or tasks
- Before the buying of plant, substances or other goods and services
- Changes to how work is done
- Changes to legislation, standards, manufacturer or supplier information

Once the task / work and associated plant, equipment, substances and environment have been viewed and hazards have been identified, they must be risk assessed to determine the level of risk they pose to workers health and safety.

RISK MATRIX					
<u>Likelihood</u>	<u>Consequences</u>				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A - Almost Certain	M	H	E	E	E
B - Likely	M	H	H	E	E
C - Possible	L	M	H	H	E
D - Unlikely	L	L	M	H	H
E - Rare	L	L	M	H	H

Using the risk matrix provided (or your own), determine the level of risk by assessing the:

- likelihood (chance) of harm occurring, and
- Most likely consequences (injury or damage) if harm was to occur.

Calculating these factors will give you a risk rating score and determine whether there is an extreme, high, moderate or low risk to a workers health and safety.

11. Prioritising the risks. (Risk Evaluation)

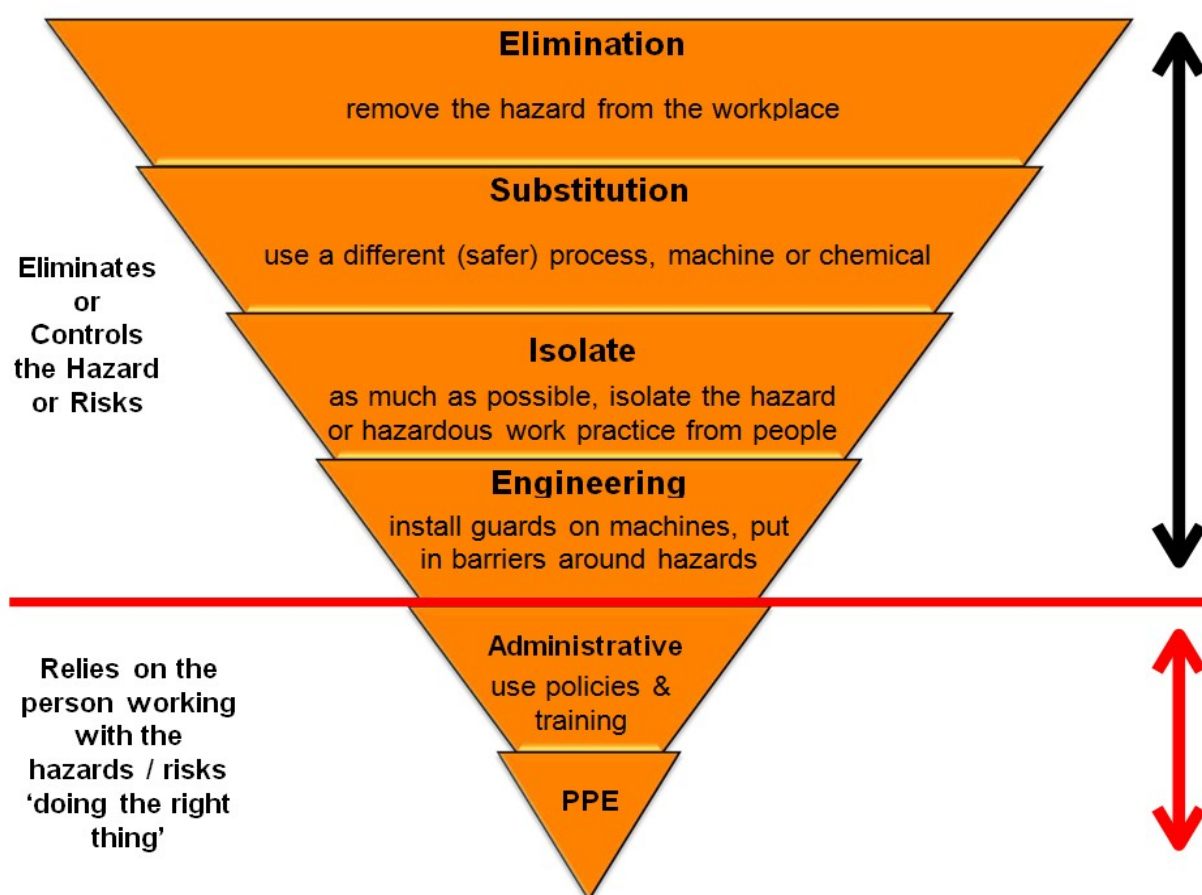
Once you have determined the risk rating for each hazard, you then need to prioritise the actions to be addressed with the highest level of risk being treated first.

12. Controlling the risks. (Risk Treatment)

WHS legislation requires a PCBU (mine/quarry operator) to do all that is reasonably practicable to eliminate or minimise risks.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest.

This ranking is known as the **hierarchy of control**.



You must work through this hierarchy of Control to manage risks to health and safety.

The first thing to consider is whether hazards can be completely removed from the workplace. For example, risks can be eliminated by physically separating pedestrian routes from vehicle areas.

This could be done by conducting activities at times when pedestrians are not present, using physical barriers or overhead walkways.

Where it is not reasonably practicable to completely eliminate the risk, then consider one or more of the following options in the order they appear below to minimise risks:

- substitute the hazard for something safer e.g. replace forklifts with other load shifting equipment like a walker stacker or pallet jacks;
- isolate the hazard from people e.g. by creating a delivery area away from other pedestrians or work activities;
- Use engineering controls e.g. speed limiters on dump trucks or presence sensing devices on loaders.

If after implementing the above control measures a risk still remains, consider the following controls in the order below to minimise the remaining risk, so far as is reasonably practicable:

- Use administrative controls e.g. warning signs to alert personnel of dangers, specific machinery requirements, speed limits or exclusion zones.
- Use personal protective equipment (PPE) e.g. high visibility clothing.

A combination of the controls set out above may be used if a single control is not enough to minimise the risks.

You need to consider all possible control measures and make a decision about which are reasonably practicable for your workplace.

Deciding what is reasonably practicable includes the availability and suitability of control measures, with a preference for using substitution, isolation or engineering controls to minimise risks before using administrative controls or PPE.

Cost may also be relevant, but you can only consider this after all other factors have been taken into account.

13. Documenting corrective actions / controls (risk treatment plans)

Documenting how you intend to address the risk should be completed through risk treatment plans, more commonly known as corrective action plans.

Action plans should identify the hazard, control measures, risk levels, persons responsible for completing the actions and time frames for completion.

Note: A general risk assessment checklist tool is available in the MAQOHSC resource manual and also on the MAQOHSC website - www.maqohsc.sa.gov.au

For mining operations, when preparing a principal mining hazard management plan (PMHMP) it must:

- Include the management of all aspects of the risk controls in relevant to the PMH
- Be set out and expressed in a way that is easily understandable and made readily accessible for workers who use the PMHMP.

Note: Principal Mining Hazard Management Plans (PMHMPs) must form part of the existing safety management system (SMS) of a site or organisation. For guidance on PMHMP, Please refer to PMH

14. Information, training, instruction and supervision

Responsibilities for health and safety management must be clearly allocated. It is important each worker, contractor, subcontractor and other relevant people clearly understand their role in following safe work practices and taking reasonable care of themselves and others.

Before any workers including contractors, undertakes a task on your site, you must provide that worker with the appropriate information, instruction, training or supervision necessary to protect them and others from the risks associated with the work.

This includes any associated plant, equipment or tools they will use as part of the work, along with the environment they will be working in.

Risk assessment documentation must be made available to workers and they must be informed of the hazards and risks related to their work and their working environment and the risk control to prevent harm.

Procedures should be generated for workers to ensure the safe work practices are documented, standardised and easily understandable and workers must be trained in these safe work procedures.

For tasks / work that's not regularly performed, a job hazard analysis (JHA) or a safe work method statement (SWMS for construction work) should be completed.

Additionally, certain types of work, plant and equipment require a person to have certain licences and competencies to be able to safely perform their duties.

Supervision should also be provide to ensure safe work procedures are being followed, particularly if you are relying on administrative control measures to minimise risks.

15. Review of control measures.

It is important to monitor risks and check the control measures to ensure they remain effective.

The South Australian WHS Regulations 2012 requires a review of the control measures to be undertaken whenever there are any changes associated with a task, process, plant and equipment, chemicals or the work environment.

In undertaking the review, workers who are protected by the control measures, their health and safety representatives (if any) and other PCBU's and their workers must be consulted and given the opportunity to contribute information and their ideas.

The following questions should also be considered:

- Are the control measures working effectively in both their design and operation?
- Are all hazards being identified?
- How effective is the risk assessment process?
- Are workers actively involved in the risk management process?

- Are workers openly raising health and safety concerns and reporting problems promptly?
- Have new work methods or new equipment made the job safer?
- Is the safe work procedure effective and accurate?
- Are safety procedures being followed?
- Has instruction and training provided to workers been successful?
- If new legislation or new information becomes available, does it indicate current controls may no longer be the most effective?

16. Record Retention

In the risk management process, records provide the foundation for improvement in methods and tools, as well as in the overall process.

Decisions concerning the creation of records should take into account:

- the organization's needs for continuous learning;
- benefits of re-using information for management purposes;
- costs and efforts involved in creating and maintaining records;
- legal, regulatory and operational needs for records;
- method of access, ease of retrievability and storage media;
- retention period; and
- Sensitivity of information.

Appendix A: Hazard Report Form and Risk Matrix

PART A: HAZARD IDENTIFICATION – TO BE COMPLETED BY WORKER

Workers Name: _____ Time Reported: _____ / _____ am / pm Date: _____ / _____ / _____

Workers Supervisor: _____

Exact Location of Hazard: _____

Description of Hazard: _____

Immediate actions taken: _____

Workers suggested solution to control the hazard: _____

Workers Signature: _____

PART B: TO BE COMPLETED BY SUPERVISOR

Hazard Investigation Found: _____

Can Hazard be Eliminated Immediately?

YES ☐ Supervisor to eliminate Hazard and signoff Part B then forward to *(insert relevant position, e.g. WHS Advisor)*.

Describe Actions Taken: _____

NO ☐ Supervisor to assess hazard (in consultation with worker) and determine risk level (Refer to Risk Assessment Matrix)

<u>Risk Rating</u>	<u>Hierarchy of Control Used: (one or combination)</u>
Extreme: Stop work until risk control implemented <input type="checkbox"/>	Substitution <input type="checkbox"/>
High: Implement risk control within 3 days <input type="checkbox"/>	Engineering <input type="checkbox"/>
Moderate: Implement risk control within 1 week <input type="checkbox"/>	Administration SOP/Training <input type="checkbox"/>
Low: Regularly monitor hazard <input type="checkbox"/>	Personal Protective Equipment <input type="checkbox"/>

Risk Control Measure Action Plan: Supervision (in consultation with worker) determines and implements risk controls.

Action	Responsibility	Target Date	Completed

Are Controls Completed & Assess? **YES** ☐ **Do Not pass on unless risk has been Satisfactorily Controlled!**

Feedback to Worker who raised Hazard Report Form? **YES** ☐

Supervisor's Signature: _____ Date: _____

PART C – TO BE COMPLETED BY (Insert position title) e.g. WHS Superintendent, WHS Coordinator

Hazard has been Assessed & Controlled

(Insert position title) e.g. WHS Superintendent, WHS Coordinator

Name: _____ Signature: _____ Date: _____

PART D – TO BE COMPLETED BY MANAGER

Hazard has been Assessed & Controlled to my satisfaction

Manager's Name: _____ Signature: _____ Date: _____

RISK MATRIX

Likelihood	Consequences				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A - Almost Certain	M	H	E	E	E
B - Likely	M	H	H	E	E
C - Possible	L	M	H	H	E
D - Unlikely	L	L	M	H	H
E - Rare	L	L	M	H	H

Risk Matrix Legends

Rating	Safety	Health	Environment
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern, only requiring first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
2 Moderate	Medically treated injury. Reversible injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but not leads to restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence Incident resulting in some site contamination. Medium term recovery impact.
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.
5 Catastrophic	Fatality. Permanent disabling injuries	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences

Rating	Descriptor	Description	Suggested Frequency
A	Almost certain	The event is expected to occur	Recurring event during the lifetime of a project/operation, e.g. More than once per month
B	Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project/operation, e.g. At least once per year
C	Possible	The event should occur	Event that may occur during the lifetime of a project/operation e.g. once in 3 years
D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project/operation e.g. once in 10 years
E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project/operation, e.g. Once in 15 years

Rating	Definition	Level of Involvement
Extreme	No works shall be conducted until controls are implemented to reduce the risk level. Formal risk assessment required.	Mine Operator needs to review and approve risk control measures before allowing work to recommence
High	Corrective action required. Normally permits required to perform work. SWP or JHA mandatory	Mine / Quarry Manager review required
Moderate	Corrective action required. JHA or SWP required	Supervisor / Superintendent review required
Low	Corrective action where practical. Take 5 risk assessment required	Supervisor to manage by routine procedures at operational level

Appendix B: Hazard Report Register

[illegible]

Appendix C: Risk Assessment Checklist – Obtain from MAQOHSC Web Site Resource section under tools

REASONS FOR RISK ASSESSMENT

Company:

Site Location

Is the risk assessment due to new or proposed changes to plant and equipment, a work process, hazardous chemicals or the environment?

YES

☐

NO

☐

If **Yes**, please tick the corresponding box:

Plant & Equipment?

☐

Work Process?

☐

Hazardous Chemicals?

☐

Environment?

☐

Describe the change:

If **No** is the risk assessment required due to a hazard that has not been previously risk assessed? (Please tick)

YES

☐

NO

☐

If **Yes**, was the hazard identified as a result of **Hazard Report**? (Please tick)

YES

☐

NO

☐

If **No**, was the hazard identified as a result of **Incident Report**? (Please tick)

YES

☐

NO

☐

If none of the above describe the reasons for the risk assessment review e.g. safety management system / document review:

Additional Details or Comments:

Appendix D: Risk Register

Site Risk Register								
Risk Assessment No. (Hyperlink)	General Hazards (R34)	Risk	Risk Rating	Applicable Policy / Procedure	Risk Control	Person Responsible	Revised Risk Rating	Review Date
Risk Assessment No. (Hyperlink)	Principle Mining Hazards (R627)	Risk	Risk Rating	Applicable Policy / Procedure	Risk Control	Person Responsible	Completion Date	Review Date

Appendix E: Legislation, Standards, Codes and Guides

Legislation

- WHS Act 2012 [SA];
- WHS Regulations 2012 [SA];
- The Environment Protection Act 1993 [SA], Section 25 – General environmental Duty

Codes

- Code of Practice – How to Manage Work Health and Safety Risks;

Standards

- AS/NZS ISO 31000:2009, Risk Management

MAQOHSC Resources

- ☐ Hazard Identification and Control Procedure
- ☐ Risk Management Procedure
- ☐ Risk Assessment Instructions
- ☐ Risk Assessment Checklist
- ☐ Principle Mining Hazard Guide
- Principle Mining Hazard Risk Assessment Checklist – Road and other vehicle operating areas
- ☐ Traffic Management Inspection Checklists

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

Users should always verify historical material by making and relying upon their own separate inquiries prior to making any important decisions or taking any action on the basis of this information.

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Hazard Identification and Risk Control Procedure Template

Purpose

To provide a process and mechanism for the prevention of injury, illness, environmental harm or property damage within *(insert company name)* through the identification, assessment and elimination or control of workplace hazards and risks.

The aim of this procedure is to encourage all personnel to have a proactive approach to the identification, assessment, elimination or control of hazards and risks within *(insert company name)*.

Scope

This procedure applies to all visitors, contractors and employees attending *(insert mine/quarry name)* site.

Definitions

Hazard Management:	A process where hazards are identified, risk assessed, eliminated or controlled so that injury, illness, property damage or environmental harm is removed or reduced.
Hazard:	Something that has the potential to cause harm (injury or damage).
Risk:	The probability and consequences of the level of harm occurring.
Risk Assessment:	The process of deciding how dangerous or potentially severe a hazard is.
Control Measures:	The process of eliminating or minimising the risk of harm.
Hierarchy of Control:	The tool used when determining how risks are to be managed.
Supervision:	Manager, Supervisor or Team leader.

Responsibilities

Guidance note (delete this later): Below is an example of positions and responsibilities. The positions will need to be modified to suit your operation and organisational structure. This could include Management, Site Administrators, and Work Health and Safety personnel, Supervisors and Health and Safety Representatives.

All parties involved with work of any nature have responsibilities in regards to workplace health and safety under the *Work Health and Safety Act 2012 (SA)* and *Work Health and Safety Regulations 2012 (SA)*. Sound environmental management is also a legislative requirement.

This includes Officers, Managers, Supervisors, Workers and others.

Workers:

- Take immediate actions or start the process to eliminate or control a hazard when identified.
- Report Hazards immediately to their immediate supervision and discuss appropriate control measures.
- Complete **PART A** of the Hazard Report Form (**Appendix A**) and forward form to Supervision.

Supervision:

- Ensure all personnel under their control are trained and competent in identifying and reporting hazards by ensuring they have undertaken ongoing adequate training.
- As with all workers, report any Hazard that might impact on the health and safety of workers, plant or the environment.
- Investigate the Hazard and complete the Hazard Investigation found section in **PART B** of the Hazard Report Form (**Appendix A**).

Hazard Identification and Risk Control Procedure Template

Supervision continued:

- Assess whether Hazards can be eliminated immediately or require appropriate control measures.
- Assess the Hazards severity using the Risk Assessment Matrix (**Appendix B**) to identify the risk level and complete the Hazard risk rating section in **PART B** of the Hazard Report Form.
- Using the “Hierarchy of Control”, engage in consultation with Health and Safety Representatives (HSRs) and workgroups to identify appropriate control measures.
- Complete the action taken to implement controls and Hierarchy of Controls section in **PART B** of the Hazard Report Form.
- Ensure **PART B** of the Hazard Report Form is **fully completed** and signed off only when totally satisfied that the Hazard is either eliminated or adequately controlled.
- Provide feedback to the worker who raised the Hazard Report Form.
- Review and monitor the effectiveness of the control measures by ensuring the implementation of ongoing routine workplace Inspections and the continual use of this procedure within their area of responsibility.

Health and Safety Representatives: (Only where one has been elected by the workgroup)

- As with all workers report any Hazard that might well impact on the safety of workers or the environment.
- Assist workers in filling out **PART A** of the Hazard Report Form (**Appendix A**).
- Assist Supervision in defining appropriate control measures in **PART B** of the Form.
- Ensure all Hazard Reports are raised and discussed at the monthly Work Health and Safety meetings / toolbox or pre-start meetings.

(insert position title e.g. Work Health and Safety Coordinator):

- Verifies Hazard has been controlled and signs off on the Hazard Report Form.
- Maintains a Hazard Report Register.
- Provides statistical performance indicator of Hazard control closure.
- Retains Hazard Report Forms for a minimum period of 3 years.

Managers:

- Ensure all personnel under their control are trained and competent in identifying and reporting Hazards by ensuring they have undertaken ongoing adequate training.
- As with all workers, report any Hazard that might impact on the health and safety of workers, plant or the environment.
- Ensure adequate resources are made available to control hazards which have been identified and assessed, within their own key area of responsibility.
- Regularly review and monitor key performance indicators and risk management strategies related to Hazard management.
- Ensure implementation and continual use of this procedure within their area of responsibility.
- Ensure the Hazard controls are suitable and effective.
- Ensure the Hazard Report Form (**Appendix A**) is **fully completed** and **signed off**, and is forwarded to *(insert position title)* for record keeping.

(insert company forum e.g. Work Health and Safety Committee, Management meeting):

- Review Hazard Report completion rates as a key performance indicator.
- Recommend and instigate improvement programs if failures are identified within the system.

Hazard Identification and Risk Control Procedure Template

Training and Authorisation

All new and existing workers shall be instructed on Hazard Identification and the process for Hazard Management as part of their company induction, training modules and refresher training.

Revision

This Procedure will be revised as required and at no later than two years from the date of last major revision.

SUPPORTING DOCUMENTATION

Work Health and Safety Act 2012 (SA), Section 19

Work Health and Safety Regulations 2012 (SA)

The Environment Protection Act 1993 (SA), Section 25 – General Environmental Duty

How to Manage Work Health and Safety Risks, Code of Practice (SafeWork SA)

Appendix A: Hazard Report Form

Appendix B: Risk Matrix and Legend

Authorisation

Revision	Review / Edit Date	Reason for Review	By whom reviewed
1	dd.mm.yyyy	New document	Joe Bloggs

Name:

(insert position title e.g. Managing Director)

Signed:

Date:

Hazard Identification and Risk Control Procedure Template

Appendix A

RISK ASSESSMENT MATRIX

RISK MATRIX					
Likelihood	Consequences				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A - Almost Certain	M	H	E	E	E
B - Likely	M	H	H	E	E
C - Possible	L	M	H	H	E
D - Unlikely	L	L	M	H	H
E - Rare	L	L	M	H	H

Risk Matrix Legends			
Rating	Safety	Health	Environment
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
2 Moderate	Medically treated injury. Reversible injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but does not lead to restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence Incident resulting in some site contamination. Medium term recovery impact.
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days.	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.
5 Catastrophic	Fatality. Permanent disabling injuries.	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences

Rating	Descriptor	Description	Suggested Frequency
A	Almost certain	The event is expected to occur	Recurring event during the lifetime of a project / operation e.g. More than once per month.
B	Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project / operation e.g. At least once per year.
C	Possible	The event should occur	Event that may occur during the lifetime of a project / operation e.g. Once in 3 years.
D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project / operation e.g. Once in 10 years.
E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project / operation e.g. Once in 15 years.

Rating	Definition	Level of Involvement
Extreme	Cease work - No works shall be conducted until controls are implemented to reduce the risk level. Immediate formal risk assessment required.	The most senior person on site (Chief Executive Officer, Managing Director, General Manager) must review and approve risk control measures before allowing work to recommence.
High	Corrective action required. Normally permits required to perform work. Safe Work Procedure or Job Hazard Analysis is mandatory.	Mine Operator and / or Quarry Manager review required.
Moderate	Corrective action required. Job Hazard Analysis or Safe Work Procedure required.	Supervisor / Superintendent review required.
Low	Corrective action where practical. Take 5 risk assessment required.	Supervisor to manage by routine procedures at operational level.

Insert Company Logo
Here

Hazard Identification and Risk Control Procedure Template

HAZARD REPORT FORM

PART A: HAZARD IDENTIFICATION – TO BE COMPLETED BY WORKER

Workers Name: _____ Time Reported: / am / pm Date: / /
Workers Supervisor: _____
Exact Location of Hazard: _____
Description of Hazard: _____ _____
Workers Suggested Solution to control the Hazard: _____ _____ _____
Worker's Signature: _____

PART B: TO BE COMPLETED BY SUPERVISION

Hazard Investigation Found: _____ _____			
Can Hazard be Eliminated Immediately? YES <input type="checkbox"/> Supervision to eliminate Hazard and signoff Part B then forward to Health and Safety Representative. Describe Actions Taken: _____ _____			
NO <input type="checkbox"/> Supervision to Assess Hazard and determine Risk level (Refer to Risk Assessment Matrix)			
<u>Risk Rating</u>		<u>Hierarchy of Control Used: (one or combination)</u>	
Extreme: Stop work until risk control implemented <input type="checkbox"/>	Substitution <input type="checkbox"/>		
High: Implement risk control within 3 days <input type="checkbox"/>	Engineering <input type="checkbox"/>		
Moderate: Implement risk control within 1 week <input type="checkbox"/>	Administration Safe Operating Procedure / Training <input type="checkbox"/>		
Low: Regularly monitor hazard <input type="checkbox"/>	Personal Protective Equipment <input type="checkbox"/>		
<u>Risk Control Measure Action Plan: Supervision (in consultation with worker) determines and implements risk controls.</u>			
Action	Responsibility	Target Date	Completed
Are Controls Completed and Assessed? YES <input type="checkbox"/> Do Not pass on unless risk has been Satisfactorily Controlled!			
Feedback to Worker who raised Hazard Report Form? YES <input type="checkbox"/>			
Supervisor's Signature: _____		Date: _____	

PART C – TO BE COMPLETED BY *(insert position title e.g. Work Health and Safety Coordinator)*

Hazard has been Assessed and Controlled <i>(insert position title e.g. Work Health and Safety Coordinator)</i> Name: _____ Signature: _____ Date: _____		
--	--	--

PART D – TO BE COMPLETED BY MANAGER

Hazard has been Assessed and Controlled to my satisfaction	
Manager's Signature: _____	Date: _____

Job Safety Analysis Template

Date:		Is this JSA:	<input type="checkbox"/> New	<input type="checkbox"/> Reviewed	JSA Number:	
Do personnel require a licence / ticket / permit / trade skill / other:		<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:		
Exact Location: e.g. Crushing Plant						
Task: e.g. Removal and replacement of screens						
Reference Materials: e.g. Equipment Manufacturers operation and maintenance manual						

Once developed, the JSA must be signed below by each JSA team member involved in the development of the JSA.

JSA Team Members		
Name	Position	Signature

This JSA is not valid until signed by the Site Supervisor or nominee.

Each section of the work sheet must be completed before it can be validated and before work can start.

Authorisation					
Site Supervisor / Nominee:		Signature:		Date:	
JSA Team Leader:		Signature:		Date:	

HAZARD / ENERGY	GUIDELINES FOR ASSESSING IF A HAZARD IS PRESENT	RECOMMENDED CONTROL MEASURE - THE BETTER CONTROL IS THE FIRST CONTROL MEASURE LISTED IN EACH SECTION BELOW.
NOISE Acoustic Mechanical Vibrations Energy	Would you have to shout to be heard less than a metre away from the person to whom you're speaking? YES <input type="checkbox"/> NO <input type="checkbox"/>	<ul style="list-style-type: none"> – Switch off the source of the noise where possible. – Move work to a quieter area. – Erecting a sound-absorbing barrier between employee and source. – Work in rotating teams to reduce the employees' exposure time. – Specify the particular type of hearing protection required (plugs, muffs or both).
HEAT Thermal Energy	Is there a risk of burns / scalds, cold burns, heat exhaustion, sunburn? YES <input type="checkbox"/> NO <input type="checkbox"/>	<ul style="list-style-type: none"> – Install a barrier between heat source and employee. – Work in rotating teams to minimise long exposure to heat or cold. – Supply personal cooling devices. – Ensure adequate cool drinking water is available. – Wear additional clothing, gloves, boots.
LIGHTING	Is the lighting good enough to see where you are and what you are doing clearly? YES <input type="checkbox"/> NO <input type="checkbox"/>	<ul style="list-style-type: none"> – Install additional and / or improve the permanent lighting (low voltage in confined spaces). – Move the current lighting to achieve best effect (out of shadows). – Move the job being undertaken to well-lit area. – Install temporary lighting.
AIRBORNE SUBSTANCES Chemical Energy	Are there any airborne contaminants released or generated when performing this task? YES <input type="checkbox"/> NO <input type="checkbox"/> If so, what sort are they? (e.g. welding fumes, dusts, etc.)	<ul style="list-style-type: none"> – Reduce the dust or fume by wetting down. – Enclose the source of the dust. – Install permanent or temporary extraction ventilation to remove dust into drum for disposal. – Clean up all spills immediately, and vacuum if dry. – Provide and instruct in use and maintenance of respiratory protection.
CHEMICALS Chemical Energy	Does the task involve the handling or the use of chemicals? YES <input type="checkbox"/> NO <input type="checkbox"/> If yes, please list the types of chemicals (e.g. sodium chlorate, diesel, etc.)	<ul style="list-style-type: none"> – Source a less hazardous chemical. – Install a temporary or permanent barrier between employee and chemical. – Reduce the volume of chemical stored or used. – Minimise the time the employee is exposed to the chemical. – Specify the need for specific Permits and / or gas testing (e.g. confined spaces). – Refer to Safety Data Sheet (SDS), and always specify the use of the appropriate personal protective equipment (PPE).
GASES Chemical Energy	Are there any gasses released or generated when performing this task? YES <input type="checkbox"/> NO <input type="checkbox"/> If so, what sort are they? (e.g. smells, SO ₂ , etc.)	<ul style="list-style-type: none"> – Dilute the gas by doing the job in open air or well-ventilated place. – Contain the gas by installing a permanent or temporary enclosure around the source. – Remove the gas by extraction ventilation or vacuum. – Instruct employees in the use and maintenance of appropriate personal protective equipment (PPE).

<p>PLANT, MACHINES AND EQUIPMENT</p> <p>Kinetic or Potential Energy</p>	<p>Are plant, conveyors and / or machine moving parts exposed which can be guarded? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Are additional emergency stop mechanisms required to prevent risk of injury? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Are there any potential electrical, mechanical or pneumatic hazards? YES <input type="checkbox"/> NO <input type="checkbox"/></p>	<ul style="list-style-type: none"> – Specify the correct machine or piece of equipment to do the job. – Identify all the protective guards, grating, mesh which must be in place. – Ensure the correct signs are in place (e.g. this machine starts automatically). – Specify the signs and / or barricades required (e.g. bunting, no entry, authorised personnel only, restricted access, etc.). – Specify the type Permit required. – Specify the isolation required; electrical, high voltage, mechanical and pneumatic (air) or other energy sources.
<p>Hand Tools</p> <p>Biomechanical Energy</p>	<p>Will the task require the use of hand tools? YES <input type="checkbox"/> NO <input type="checkbox"/></p>	<ul style="list-style-type: none"> – Specify the testing requirements for all electric hand tools and extension leads. – Specify any specific tools not to be used for the job. – Specify any personal protective equipment (PPE) related to using tools.
<p>HAZARDOUS MANUAL TASKS</p> <p>Biomechanical Energy</p>	<p>Will you perform any of the following actions repeatedly?</p> <p>Bend down YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Reach above your head YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Reach forward YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Twist (at waist line) YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Maintain an awkward posture YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Are actions repeated frequently? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Do you manually move loads over long distances? YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Does the task involve pushing, pulling or carrying loads? YES <input type="checkbox"/> NO <input type="checkbox"/></p>	<ul style="list-style-type: none"> – Fix the item as part of a modular change-out rather than in situ. – Build or erect scaffolding to gain better access. – Specify need for scissor lift, cherry picker (or personnel cage) to gain better access. – Ensure that all employees are trained in correct lifting techniques. – Ensure that there are adequate numbers of employees to do the job. – Work in rotating teams to share the need to frequently lift or carry loads. – Limit the number of times the load has to be moved by changing the drop-off or original storage / destination point. – Use a mechanical lifting device where possible (e.g. crane, forklift, trolley). – Reduce the size or weight of the load to be carried or lifted (e.g. smaller bags, boxes, drums, containers).

<p>SAFE WORKING AT HEIGHTS</p> <p>Kinetic or Potential Energy</p>	<p>Could an injury occur as a result of a person falling?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Is a person required to work where there is a risk of falling from one level to another?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Is a Fall Injury Protection System the principle means of protection?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Does a person need to exit from an elevated work platform (EWP) in the raised position?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Creating an open hole with edge protection, floor or walkway?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Scaffolding is to be erected or dismantled?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Is work to occur on or near the edge of a fragile surface?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Could an injury occur as a result of an object falling?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>	<ul style="list-style-type: none"> – Use the safe work at height permit. – Have a safe working area by means of work platforms or scaffolds complete with floors, guardrails, kickboards, and a safe method of access and egress. – Use fall injury prevention systems to prevent falls and falling objects. – Wear protective helmets with chinstraps. – Use tool lanyards or tool belts. – Fit close fitting floor boards and kick-rails and netting. – Practice good housekeeping, signage, and drop-zone barricading to prevent injuries from falling objects.
<p>CONCURRENT OPERATIONS</p>	<p>Are other jobs / tasks in progress which could pose an interaction risk to employees carrying out this task?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Are there other jobs / tasks in progress which could be put at risk by carrying out this task?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p> <p>Is there a risk from accidental falling objects, spillage or other interactions, accidental or otherwise, between this task and any other concurrent tasks being carried out?</p> <p>YES <input type="checkbox"/> NO <input type="checkbox"/></p>	<ul style="list-style-type: none"> – Re-schedule work. – Provide controls, such as area / vessel isolations, or drop-zone barricading and signage, to prevent injuries from falling objects, spillage or other interactions.

Job Safety Analysis Template

CRANE / LIFTING OPERATIONS		Does the task / job require personnel, materials or equipment to be lifted such that a suspended load risk is created? YES <input type="checkbox"/> NO <input type="checkbox"/>		– Specify and provide the necessary isolations, signs and barricades as required.		
Step	Job Tasks <i>List the key job steps required to perform the task. In the sequence that they are to be carried out.</i>	Hazards <i>List the identified hazards with each step.</i>	Existing Controls <i>List the controls already in place. e.g. Safe Operating Procedure, Trained Competent Operator, etc.</i>	Assess Risk Initial rank	Additional Controls <i>List identified additional control measures that are to be implemented.</i>	Assess Risk Residual rank

CHANGES TO THE JSA

List new or changed Job Steps and
Identify the Hazards and Risks.

The nominated person responsible for the job **must** consult with, communicate to and instruct all concerned with the work. All persons working on the job **must** be aware of the changed / new job steps, hazards and risk controls.

Step	Job Tasks <i>List the key job steps required to perform the task. In the sequence that they are to be carried out.</i>	Hazards <i>List the identified hazards with each step.</i>	Existing Controls <i>List the controls already in place. e.g. Safe Operating Procedure, Trained Competent Operator, etc.</i>	Assess Risk Initial rank	Additional Controls <i>List identified additional control measures that are to be implemented.</i>	Assess Risk Residual rank
1						
I UNDERSTAND THE ABOVE CHANGES, INCLUDING THE HAZARDS, RISKS AND THE CONTROL MEASURES. TO BE SIGNED ALONG HERE BY ALL PERSONS WORKING ON THIS JOB.						
2.						
I UNDERSTAND THE ABOVE CHANGES, INCLUDING THE HAZARDS, RISKS AND THE CONTROL MEASURES. TO BE SIGNED ALONG HERE BY ALL PERSONS WORKING ON THIS JOB.						

Consequence Rating Criteria

Rating	Safety	Health	Environment	Equipment and Assets	Business Continuity	Community and Reputation	Liability
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern requiring first aid treatment at most.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.	Below \$5,000 (or 0.1% of operational budget based at 50,000,000).	Loss of operations for > ½ day. Reduction in capacity, < 10% for up to one month.	Unsubstantiated, low profile or no media attention. One-off complaint which is resolved via existing procedures.	Below \$50,000 (or 0.1% of operational budget based at 50,000,000).
2 Moderate	Medically treated injury. Reversible injury. Requires treatment but does not lead to restricted duties.	Reversible health effects of concern that result in medical treatment but not restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).	Between \$5,000-\$50,000 (or 0.1%-0.5% of operational budget).	Loss of operations for > ½ day. Reduction in capacity, < per 20% for up to one month. Minor disruption to supply of services or technical support.	Substantiated, low impact, low media profile. Unresolved, low level community dissatisfaction. Repeated community complaints.	Between \$50,000-\$250,000 (or 0.1%-0.5% of operational budget). Financial or accounting issue with ability to resolve with existing resources.
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence. Incident resulting in some site contamination. Medium term recovery impact.	Between \$50,000-\$500,000 (or 0.5%-3.5% of operational budget). Threat to property by known extreme organisations.	Loss of operations for one day to one week. Reduction in capacity, < 30% for up to one month. Increased government interest.	Substantiated, public embarrassment, moderate media profile (front page, one day). Repeated community complaint. Community demonstration. Impact on share price.	Between \$250,000-\$1,750,000 (or 0.5%-3.5% of operational budget). Financial or accounting issue requiring Chief Financial Officer (CFO) resolution.
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days.	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.	Between \$500,000-\$1,000,000 (or 3.5-10% of operational budget). Confirmed threats, without actions.	Loss of operations for one week to one month. Reduction in capacity, < 50% for up to one month. Regulatory enquiry.	Substantiated, public embarrassment, high impact, major media attention. Local or state media interest. Severe community dissent. Criticism from a non-government organisation (NGO) and / or government.	Between \$1,750,000-\$5,000,000 (or 3.5-10% of operational budget).
5 Catastrophic	Single fatality. Permanent disabling injuries.	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences.	Above \$1,000,000 (or more than 10% of operational budget). Escalating threats or actions.	Loss of operations for > 1-3 months. Loss of permit to operate. Total loss of production for more than one month.	Substantiated, public embarrassment, multiple impacts, long lasting widespread media coverage. Severe, prolonged community dissent.	Above \$5,000,000 (or more than 10% of operational budget).

Risk Matrix

		Consequence				
		1 Minor	2 Moderate	3 Serious	4 Major	5 Catastrophic
Likelihood	A Almost Certain	10	16	20	23	25
	B Likely	7	12	17	21	24
	C Possible	4	8	13	19	22
	D Unlikely	2	5	9	14	18
	E Rare	1	3	6	11	15

Risk result	Rating	Definition	Level of involvement
Note when a potential consequence is classified as catastrophic, immediate and on-going intervention is required from the CEO to ensure control measures are adequate.			
19 - 25	Critical	Imperative to eliminate or reduce risk to a lower level by the introduction of controls. Formal risk assessment required.	CEO needs to review.
18 - 11	High	Corrective action required. Normally permits required to perform work. Safe Work Procedure or Job Hazard Analysis mandatory.	Quarry Manager review required.
10 - 6	Moderate	Corrective action required. Safe Work Procedure or Job Hazard Analysis required.	Supervisor review required.
5 - 1	Low	Corrective action where practical. Take 5 risk assessment required.	Manage by routine procedures at operational level.

Rating	Descriptor	Description	Suggested Frequency
A	Almost certain	The event is expected to occur	Recurring event during the lifetime of a project / operation e.g. more than once per month
B	Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project / operation e.g. at least once per year
C	Possible	The event should occur	Event that may occur during the lifetime of a project / operation e.g. once in 3 years
D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project / operation e.g. once in 10 years
E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project / operation e.g. once in 15 years

PREPARATION:

Before undertaking a risk assessment:

- Select personnel to be a part of the risk assessment team and a leader of the team should be appointed.
- The leader of the team should be a competent person (have the skills, knowledge and experience) to undertake the risk management process and have a good understanding of the work processes to be assessed.
- All persons involved in the risk assessment should have an understanding of the work processes to be assessed.
- The team should consist of management / supervision, a health and safety representative (where elected) and a worker directly related to the work.
- The risk assessment team should consult with the worker(s) who undertake the work, or who will be directly affected by the work.

The leader of the risk assessment team should:

- Consult with those involved and agree on a date and time to undertake the risk assessment.
- Ensure the team has the appropriate resources available for the assessment, i.e. note pads, pens, tape measure, level and noise meter (where necessary).
- Ensure the plant or chemical substances associated with the work processes are available during the risk assessment.
- Have copies of plant and equipment operating manuals, operating procedures and maintenance manuals, along with any safety data sheets (SDS) for substances to be used or produced during the work processes.

The risk assessment team should:

- Review the pre purchase risk assessment for any new plant or hazardous chemicals (where completed) to identify any pre-existing hazards that will need to be assessed.
- Review the risk assessment checklist to ensure they fully understand how it is to be used.
- Risk assessment the work process under normal operating conditions (or simulate where not practical).

CONDUCTING THE RISK ASSESSMENT:

The risk assessment team, in consultation with the worker(s) who undertake the work, or who will be directly affected by the work, should conduct the risk assessment in the following manner:

- The risk assessment team leader to complete the details on the second page of the risk assessment checklist.
- The team should assess each key step of the work process including the preparation, undertaking the work and the cleanup processes etc.
- Complete each part of the risk assessment checklist by answering the questions in each category of the checklist in the following manner:
 1. Identify any **Hazard** and tick **YES** where there is a possibility of injury or damage or **NO** where there is not;
 2. Where **YES** has been ticked, describe the **Hazard** (how and when the injury or damage could occur);
 3. Assess the risk of injury or damage from the **Hazard** using the risk matrix:
 - Assess the **likelihood** of injury or damage as a result of coming into contact with the hazard and select a level indicator; and
 - Assess the most likely **consequences** as a result of injury or damage occurring and select a level indicator.
- Follow the **likelihood** column across and the **consequences** column down on the risk matrix to the point where they both meet to obtain the **risk level (rating)** for each Hazard.
- Document the risk level in the risk rating column and identify and document the appropriate risk controls and actions using the hierarchy of control for each hazard identified.
- Reassess the risk level after risk controls and actions have been implemented.

COMPLETING ACTION PLAN

The team in consultation with relevant workgroup should:

- Record each risk control and action in the **corrective action plan** located at the end of the document.
- Assign time frame / date for completion, person(s) responsible for corrective action completion, and review with regular meetings for close out of outstanding actions.
- Verification of the completed actions needs to be completed by management and documented.

MONITORING AND REVIEWING RISK CONTROLS

The risk assessment team in consultation with relevant workgroup:

- Should monitor and review each risk control and action to ensure controls are effective and no other hazards have been created and introduced into the work.

Risk Assessment Checklist

REASONS FOR RISK ASSESSMENT

Company:

Site Location

Is the risk assessment due to new or proposed changes to plant and equipment, a work process, hazardous chemicals or the environment?

YES

☐

NO

☐

If **Yes**, please tick the corresponding box:

Plant and Equipment?

☐

Work Process?

☐

Hazardous Chemicals?

☐

Environment?

☐

Describe the change:

If **No** is the risk assessment required due to a hazard that has not been previously risk assessed? (Please tick)

YES

☐

NO

☐

If **Yes**, was the hazard identified as a result of **Hazard Report**? (Please tick)

YES

☐

NO

☐

If **No**, was the hazard identified as a result of **Incident Report**? (Please tick)

YES

☐

NO

☐

If none of the above describe the reasons for the risk assessment review e.g. safety management system / document review

Additional Details or Comments:

Risk Assessment Checklist

RISK ASSESSMENT - DESCRIPTION		Risk Assessment Completed By
Description of Activities:	<div style="border: 1px solid black; height: 25px; width: 100%;"></div>	Name: <div style="border: 1px solid black; height: 25px; width: 100%;"></div>
Location of Activities:	<div style="border: 1px solid black; height: 25px; width: 100%;"></div>	Title: <div style="border: 1px solid black; height: 25px; width: 100%;"></div>
Personnel Exposed:	<div style="border: 1px solid black; height: 25px; width: 100%;"></div>	Worker(s) Consulted: <div style="border: 1px solid black; height: 25px; width: 100%;"></div>
Additional Comments:	<div style="border: 1px solid black; height: 25px; width: 100%;"></div>	Date Conducted: <div style="border: 1px solid black; height: 25px; width: 100%;"></div>

RISK MATRIX						HIERARCHY OF CONTROL
Likelihood	Consequences					<p>The Hierarchy of Control must be used when determining how risks are going to be Eliminated or Minimised.</p> <p>Start at No. 1 and work down the order.</p> <ol style="list-style-type: none"> Elimination – remove the hazard from the workplace Substitution – use a different (safer) process, machine or chemical Isolation - as much as possible, isolate the hazard or hazardous work practice from people Engineering – install guards on machines, put in barriers around hazards Administrative controls – use policies, training and signs to warn workers Personal protective equipment (PPE) – use gloves, glasses, hearing protection etc. <p>Personal protective equipment is always the last option used in the hierarchy of control as a means of protection!</p>
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic	
A - Almost Certain	M	H	E	E	E	
B - Likely	M	H	H	E	E	
C - Possible	L	M	H	H	E	
D - Unlikely	L	L	M	H	H	
E - Rare	L	L	M	H	H	

Risk Assessment Checklist

Risk Matrix Legends			
Rating	Safety	Health	Environment
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
2 Moderate	Medically treated injury. Reversible injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but does not lead to restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence Incident resulting in some site contamination. Medium term recovery impact.
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Rating	Descriptor	Description	Suggested Frequency
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C	Possible	The event should occur	Event that may occur during the lifetime of a project/operation e.g. Once in 3 years
D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project/operation e.g. Once in 10 years
E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project/operation e.g. Once in 15 years

Rating	Definition	Level of Involvement
Extreme	Cease work - No works shall be conducted until controls are implemented to reduce the risk level. Immediate formal risk assessment required.	The most senior person on site (Chief Executive Officer, Managing Director, General Manager) must review and approve risk control measures before allowing work to recommence
High	Corrective action required. Normally permits required to perform work. Safe Work Procedure or Job Hazard Analysis is mandatory.	Mine Operator and or Quarry Manager review required
Moderate	Corrective action required. Job Hazard Analysis or Safe Work Procedure required.	Supervisor / Superintendent review required
Low	Corrective action where practical. Take 5 risk assessment required.	Supervisor to manage by routine procedures at operational level

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
WORKING CONDITIONS – Summarise: (isolated or remote), start and finish times, number of days per week, hours per day, overtime requirements						
Working alone / isolated or remotely from other workers? Note: refer to the Code of Practice - Managing the Work Environment and Facilities.						
Not being able to contact others for assistance in the event of an emergency?						
Bullying, harassment, violence or threatening behaviour between workers?						
Fatigue from working constant extended shifts (overtime) or double shifts Note: refer to the SafeWork Australia - Guide for Managing the Risk of Fatigue at Work.						
Fatigue from performing repetitious, monotonous work or concentrating for extended periods of time?						
Fatigue from work requiring continuous physical effort?						
Being effected by dust, odours or fumes?						
Poor visibility from reflective objects, bright lights, sun glare, excessive dust or reduced lighting?						
Exposure to UV radiation from the sun?						
Excessive temperatures when working indoors or outdoors? (Hot / Cold)						
Working in a confined space? Note: refer to the Code of Practice – Confined Space.						
Falling from one level to another while working at height? Note: refer to the Code of Practice - Managing the Risks of Falls at Workplaces.						
Slips, trips or falls at ground level or below? Note: refer to the Code of Practice - Managing the Risks of Falls at Workplaces.						
Working on a fragile roof? Perspex / fibrous cement / asbestos sheeting.						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
Note: refer to the Code of Practice - Managing the Risks of Falls at Workplaces.						
Being struck by moving mobile plant or vehicles? Note: refer to the MAQOHSC Traffic Management Guide.						
Being engulfed by a free flowing solid or liquid?						
Being struck by a falling object that is being carried, transported or lifted?						
Suffocation or being crushed from falling or collapsing materials or a structure?						
Head, body or limb contact on plant or equipment due to restricted movement in the work area?						
Electrocution from contact with powerlines, electrical cables or exposed wiring?						
Being exposed to or working with asbestos related materials during their work? Note: refer to the Code of Practice - How to manage Asbestos in the Workplace.						
Being stung, bitten or struck by an insect or animal?						
Background noise above 85db? Note: refer to the Code of Practice - Managing Noise and Preventing Hearing Loss at Work.						

HAZARDOUS MANUAL TASKS – Summarise: tasks and associated equipment used

Note! The following section is from the Code of Practice for Hazardous Manual Tasks - Refer to the Code for guidance on control measures

Definitions: Repetitive means: the movement or force is performed more than twice a minute, Sustained means: the posture or force is held for more than 30 seconds at a time

Step 1: Does the task involve repetitive or sustained movements, postures or forces? If you tick yes then the task is a risk and must be controlled

Body Part: Neck or Head

Bending more than 20 degrees	forward						
	sideways						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:		Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
	twisting						
Bending more than 5 degrees	backward						
Body Part: Back							
Bending more than 20 degrees	forward						
	sideways						
	twisting						
Bending more than 5 degrees	backward						
Body Part: Arms / Hand							
Working with one or both hands above shoulder height							
Reaching forwards or sideways more than 30cm from the body							
Reaching behind the body							
Excessive bending of the wrist							
Twisting, turning grabbing, picking or wringing actions with the fingers, hands or arms							
Body Part: Legs							
Squatting, kneeling, crawling, lying or jumping							
Standing with most of the body's weight on one leg							
Very Fast Movements							
Lifting or lowering							
Carrying with one hand or one side of the body							
Exerting force with one hand or one side of the body							
Pushing, pulling or dragging							

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
Very fast actions						
Working with the fingers close together or wide apart						
Applying uneven, fast or jerky forces						
Holding, supporting or restraining anything						
Step 2: Does the task in step 1 involve long duration? If you tick yes then the task is a risk and must be controlled						
More than 2 hours over a whole shift						
Continually for more than 30 minutes at a time						
Step 3: Does the task involve high or sudden force? If you tick yes then the task is a risk and must be controlled						
Lifting, lowering or carrying heavy loads						
Hitting, throwing or catching						
Kicking or jumping						
Applying a sudden or unexpected force including: <ul style="list-style-type: none"> Handling a live person or animal Applying uneven, fast or jerky forces during lifting, carrying, pushing or pulling Pushing or pulling objects that are hard move or stop e.g. a trolley 						
Exerting force while in a bent, twisted or awkward posture including: <ul style="list-style-type: none"> Supporting items with hands which are above shoulder height Moving items when legs are in an awkward posture, working with fingers pinched together or held wide apart Using a finger grip or pinch grip or an open handed grip 						
Exerting a force with the non-preferred hand						
Needing to use two hands to operate a tool designed for one hand						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
The task can only be done for short periods of time						
Two or more people need to be assigned to handle a heavy, awkward or bulky load						
Workers report pain or significant discomfort during or after the task						
Stronger workers assigned to do the task						
Employees say the task is physically very strenuous or difficult to do						
Workers think the task should be done by more than one person, or seek help as it requires high force						
Step 4: Is there hand, arm or whole body vibration? If you answer yes in step 4, then the task requires further investigation						
Driving for long periods						
Driving on rough roads						
Frequent use of hand powered tools or use for long periods						
Using high grip forces or awkward postures when using power tools						
Use of machines or tools where the manufacturer's handbook warns of vibration						
Workers being jolted or continuously shaken						
Use of a vehicle or tool not suitable for the environment or task						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
--	---	---	--	------------	--	--------------------

PLANT - MAJOR – Summarise fixed / mobile plant or equipment: crushing plant / control room, excavator, FEL, dump truck, mobile jaw crusher, screendeck, forklift, watercart etc.

Plant Name Plant Identification No.

Model Date of Manufacture

Has the relevant Certificate of Compliance (CoC) been received for new installation: Tick Y or N Box Gas: Y ☐ N ☐ Electrical: Y ☐ N ☐ Plumbing: Y ☐ N ☐ If No? Contact licensed installer to inspect and issue

The operator controls not located for ease of use Note: refer to the Code of Practice - Managing the Risks of Plant in the Workplace.						
The emergency stops not located at the most likely places for use where work is being conducted						
The controls not identified and labelled correctly						
The emergency stops / pull wires not clearly marked						
Lanyards not installed on conveyors to AS 1755 (Use MAQOHSC conveyor inspection checklist as a guide)						
The green start buttons not shrouded or recessed?						
No provisions available to lock out the plant and dissipate stored energy						
Access platforms / ladders / stairs / handrails do not meet AS 1657 requirements?						
No Residual Current Device (RCD) protection devices installed (Fixed plant only)						
No adequate provision to service / routinely grease and oil the plant						
No safe systems of work established for operating and maintenance of the plant						
Arm, hand or fingers crushed, cut or amputated by rotating or moving parts on plant or machinery?						
Hair or clothing caught by rotating moving parts of plant or machinery?						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
Contact with hot or cold parts on plant or machinery?						
Being burnt by (hot / cold) solid, liquid or vapour escaping or being released from plant or machinery?						
Radiation exposure from plant or machinery?						
Being struck in the face / eye by ejected materials from plant or machinery?						
Contact with exposed or damaged electrical wiring while operating or servicing / cleaning or repairing the plant or machinery?						
Falling while working at height or from an elevated workplace on the plant or machinery?						
Mobile plant rolling over during operation? e.g. no roll over protection (ROPS), no seat belt, etc.						
Being struck by falling objects while operating mobile plant? e.g. no cabin, falling object protection (FOPS)						
Being crushed by plant or machinery during operational or maintenance activities?						
Workers untrained / not assessed for competency in plant and machinery operation						

PLANT - MINOR – Summarise tools / equipment to be used: oxy welder or arc, hand operated cordless / electric or pneumatic powered tools, shovel, hammers etc.

Plant Names		Plant Identification No's.	
Models		Dates of Manufacture	

Contact with compressed air? e.g. entering the eyes, ears or under the skin						
Sharp edges or objects on plant?						
Contact with unguarded rotating or moving blades or cutters?						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
Hands or fingers being squashed or crushed?						
Being struck by material in the face or eye? e.g. slag chippings, metal filings, swarf, dust particles, etc.						
Dropping tools or equipment onto legs or feet?						
Being burnt from contact with hot or cold surfaces?						
Electrocution from contact with exposed or damaged wiring of the plant?						
Radiation exposure from the plant? e.g. arc / oxy welding Note: refer to the Code of Practice - Welding Processes.						
Noise levels above 85db produced by the tools, plant, equipment or materials?						
Workers untrained / not assessed for competency in the operation of plant?						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
--	---	---	--	------------	--	--------------------

HAZARDOUS CHEMICALS – Summarise chemicals: liquids, powders, aerosols, pellets, cleaners, solvents, glues, paints, sealers, oils, fuels and poisons

Note: for any asbestos related work, refer to the Code of Practice - How to Manage and Control Asbestos in the Workplace.

List any hazardous chemicals the worker may use or handle:

(obtained from Safety Data Sheet or label on container, drum or packaging)

Are there up to date Safety Data Sheets available for each chemical?

Yes

☐

No

☐

Are the chemical(s):

If no document Safety Data Sheets required and obtain from supplier / manufacturer

Skin or Digestive Irritant?

☐

Toxic or Poisonous?

☐

Corrosive / Caustic?

☐

Classified as Dangerous Goods?

☐

Eye or Respiratory Irritant

☐

Flammable or Combustible?

☐

Classified as Hazardous Substance?

☐

Reactive or Explosive?

☐

This section is for assessing risks associated with tasks involving the use of hazardous chemicals, a separate pre-purchase risk assessment will be required for all hazardous chemicals brought to site.

Incorrect labeling of chemical container? Note: refer to the Code of Practice - Labelling of Workplace Hazardous Chemicals.						
Incorrect handling, storage or use of the chemical? (fire or explosion) Note: refer to MAQOHSC Hazardous Chemicals and Dangerous Substances Management Guide						
Inhaling the fumes or odour of the chemical?						
Skin contact with the chemical?						
Splashed in the eyes by the chemical?						
Accidentally ingesting (drink or swallow) the chemical? Note: refer to the Safety Data Sheet for information on the chemical.						
Accidentally injecting the chemical into the workers body / under the skin?						
Any other issues related to handling, storage or use of the chemical? Note: refer to MAQOHSC Hazardous Chemicals and Dangerous Substances Management Guide						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
--	---	---	--	------------	--	--------------------

OTHER PERSONS – Summarise: work that may place the health and safety of a third party at risk of injury or damage (other than an worker)

Struck by an object ejected from the plant or equipment during operations?						
Struck by a moving vehicle or mobile equipment?						
Struck by a falling object that is being removed, dismantled, erected, positioned, lifted, carried or transported?						
Property or vehicle damage from work being undertaken						
Exposure to spray drift or residue from pesticides, herbicides, paints, adhesives, solvents, chemicals or any materials?						
Exposure to dust or fumes caused by workplace operations?						
Noise levels from work workplace operations? Note: refer to the Code of Practice - Managing Noise and Preventing Hearing Loss at Work.						
A release of gas, power failure or disruption to underground services						
Slipping, tripping or falling from a height or at ground level caused by work being undertaken?						
Slipping, tripping or falling below ground level? Note: refer to the Code of Practice - Excavation Work.						

Risk Assessment Checklist

Is there a possibility of injury or damage due to:	Y	N	Record how and when injury or damage could occur	Risk Level	Record controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
--	---	---	--	------------	--	--------------------

ENVIRONMENTAL - Summarise any aspects of the work that may impact upon the environment

Dust escaping from the site boundaries?						
Sediment escaping from the site boundaries and polluting adjoining lands, water courses and aquifers?						
Waste water leaking into the storm water drainage system?						
Polluting the land, adjoining waters or the storm water system with fuel or chemical spillages?						
Soil erosion from water movement?						
A negative impact on plants and animals from use of herbicides or pesticides						
Waste material incorrectly disposed of?						
Hazardous chemicals incorrectly disposed of?						

Risk Assessment Checklist

Safe Operating Procedures (SOP) relevant to risk assessment.

Safe Operating Procedure Name:

Recommendations on Methods for Ensuring Safe Work

Where a **Safe Operating Procedure** is developed, this Risk Assessment needs to be referenced within the document.

Action Plan

Action No	Action required	Responsibility	Completion Date	Review Date
1				
2				
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Risk Assessment Checklist

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Hazard and Risk Register Template

What is a Hazard and Risk Register Register?

A Hazard and Risk Register is a list of all the identified hazards, including the risk level and the controls implemented to eliminate or minimise the risks associated with the hazard.

The Hazard and Risk Register should provide an overview of the following:

- Date the hazard was reported;
- Location of the hazard;
- A brief description of the hazard;
- What controls are currently in place;
- The inherent risk ranking; (*risk ranking with current controls only*)
- Any additional controls identified;
- Hierarchy of control to be used;
- The residual risk ranking; (*risk ranking with additional controls implemented*)
- The person responsible for implementing the control/s;
- Due date for the control/s to be implemented;
- The date of completion; and
- The date due for the review of implemented controls.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

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Risk Matrix

Rating	Safety	Health	Environment	Equipment and Assets	Business Continuity	Community and Reputation	Liability
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern requiring first aid treatment at most.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.	Below \$5,000 (or 0.1% of operational budget based at \$50,000,000).	Loss of operations for > ½ day. Reduction in capacity, < 10% for up to one month.	Unsubstantiated, low profile or no media attention. One-off complaint which is resolved via existing procedures.	Below \$50,000 (or 0.1% of operational budget based at 50,000,000). Financial or accounting issue with ability to resolve with existing resources.
2 Moderate	Medically treated injury. Reversible injury. Requires treatment but does not lead to restricted duties.	Reversible health effects of concern that result in medical treatment but not restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).	Between \$5,000- \$50,000 (or 0.1%- 0.5% of operational budget).	Loss of operations for > ½ day. Reduction in capacity, < per 20% for up to one month. Minor disruption to supply of services or technical support.	Substantiated, low impact, low media profile. Unresolved, low level community dissatisfaction, Repeated community complaints.	Between \$50,000 - \$100,000 (or 0.1% - 0.5% of operational budget). Financial or accounting issue requiring CFO resolution.
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence. Incident resulting in some site contamination. Medium term recovery impact.	Between \$50,000 - \$200,000 (or 0.5% - 3.5% of operational budget). Threat to property by known extreme organisations.	Loss of operations for one day to one week Reduction in capacity, < 30% for up to one month. Increased government interest.	Substantiated, public embarrassment, moderate media profile (front page, one day). Repeated community complaint. Community demonstration. Impact on share price.	Between \$100,000 - \$250,000 (or 0.5% - 3.5% of operational budget).
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days.	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.	Between \$200,000 - \$500,000 (or 3.5 -10% of operational budget). Confirmed threats, without actions.	Loss of operations for one week to one month. Reduction in capacity, < 50% for up to one month. Regulatory enquiry.	Substantiated, public embarrassment, high impact, major media attention. Local or state media interest. Severe community dissent. Criticism from NGO and / or government.	Between \$250,000 - \$1,000,000 (or 3.5 - 10% of operational budget). Financial or accounting issue requiring General Manager finance resolution.
5 Catastrophic	Single fatality. Permanent disabling injuries.	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences.	Above \$1,000,000 (or more than 10% of operational budget). Escalating threats or actions.	Loss of operations for > 1-3 months. Loss of permit to operate. Total loss of production for more than one month.	Substantiated, public embarrassment, multiple impacts, long lasting widespread media coverage. Severe, prolonged community dissent.	Above \$1,000,000 (or more than 10% of operational budget).

		Consequence				
		1 Minor	2 Moderate	3 Serious	4 Major	5 Catastrophic
Likelihood	A Almost Certain	10	16	20	23	25
	B Likely	7	12	17	21	24
	C Possible	4	8	13	19	22
	D Unlikely	2	5	9	14	18
	E Rare	1	3	6	11	15

Risk result	Rating	Definition	Level of involvement	Rating	Descriptor	Description	Suggested frequency
Note: When a potential consequence is classified as catastrophic, immediate and on-going intervention is required from the CEO to ensure control measures are adequate.				A	Almost certain	The event is expected to occur	Recurring event during the lifetime of a project / operation, e.g. More than once
19 - 25	Critical	Imperative to eliminate or reduce risk to a lower level by the introduction of controls. Formal risk assessment required.	CEO needs to review.	B	Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project / operation, e.g. At least once per year
18-Nov	High	Corrective action required.	General Manager or Department Manager review required.	C	Possible	The event should occur	Event that may occur during the lifetime of a project /
		Normally permits required to perform work. Safe Work Procedure or Job Hazard Analysis mandatory.		D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project / operation e.g. once in 10 years
10-Jun	Moderate	Corrective action required. Job Hazard Analysis or Safe Work Procedure required.	Supervisor review required.	E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project / operation, e.g. Once in 15 years
5-Jan	Low	Corrective action where practical. Take 5 risk assessment required.	Manage by routine procedures at operational level.				



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Principal Mining Hazard Management Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

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Appendix A7

Appendix B10

Principal Mining Hazard Management Guide

This Guidance Material has been developed in accordance with Chapter 10, Part 2, Division 2, Principal Mining Hazard Management Plans (PMHMP) of the *Work Health and Safety Regulations 2012* (SA).

AIM

The aim of the Guidance Material is to provide mine and quarry operators with an understanding of the requirements of the *Work Health and Safety Regulations 2012* (SA), Chapter 10 Mines, in relation to Principal Mining Hazards (PMH).

1. Meaning of Principal Mining Hazard

Regulation 612 of the *Work Health and Safety Regulations 2012* (SA), defines a Principal Mining Hazard as, any activity, process, procedure, plant, structure, substance, situation or other circumstance relating to the carrying out of mining operations that has a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents, in relation to any of the following:

- a) Ground or strata failure;
- b) Inundation or inrush of any substance;
- c) Mine shafts and winding operations;
- d) Roads or other vehicle operating areas;
- e) Air quality or dust or other airborne contaminants;
- f) Fire or explosion;
- g) Gas outbursts;
- h) Spontaneous combustion; or
- i) A hazard identified by the mine operator of a mine under Regulation 34.

Regulation 34 of the *Work Health and Safety Regulations 2012* (SA), states that a duty holder, in managing risks to health and safety, must identify reasonably foreseeable hazards that could give rise to risks to health and safety.

2. Identification and Assessment of Principal Mining Hazards

Regulation 627 of the *Work Health and Safety Regulations 2012* (SA) states that a mine operator must:

1. Identify all principal mining hazards at the mine,
2. Conduct, in relation to each principal mining hazard identified, a risk assessment that involves a comprehensive and systematic investigation and analysis of all aspects of risk to health and safety associated with the principal mining hazard, and
3. In conducting a risk assessment under sub-regulation (2), must—
 - a. Use investigation and analysis methods that are appropriate to the principal mining hazard being considered; and
 - b. Consider the principal mining hazard individually and also cumulatively with other hazards at the mine.

HOW

When commencing the process of identifying and assessing Principal Mining Hazards the mine operator must implement a safety role for workers (Regulation 675Q), to ensure that all personnel working at the mine / quarry are consulted (Regulation 675R), and have an opportunity to contribute in the identification and assessment of Principal Mining Hazards and development of Principal Mining Hazard Management Plans.

To commence the process of identifying potential Principal Mining Hazards the mine operator must:

- Consult with the Health and Safety Committee and elected Health and Safety Representatives.

Should there not be a Health and Safety Committee or elected Health and Safety Representatives the workforce could be consulted on Principal Mining Hazards via a toolbox meeting.

A review of the site risk register against the potential Principal Mining Hazards identified in Regulation 612 will provide a good starting point to identify Principal Mining Hazards.

Once all Principal Mining Hazards have been identified and documented, a process of risk assessing the hazards and identifying control measures will need to commence. It is important to make sure that the risks are prioritised with the highest risk to be addressed first.

As stated in Regulation 627, for each principal mining hazard identified, the mine operator must conduct a risk assessment that:

- a) Involves a comprehensive and systematic investigation and analysis of all aspects of the risk to health and safety associated with the principal mining hazard;
- b) Considers each principal mining hazard individually and cumulatively with other hazards at the mine; and
- c) Develops control measures.

When conducting a systematic investigation and analysis of the risks to health and safety and identifying control measures associated with a Principal Mining Hazard, it is good practice to review the following:

- Incident and investigation reports;
- Near Miss Reports;
- Safety Alerts from industry and regulatory bodies; and
- Codes of Practice and Guidelines.

Note: *When conducting the risk assessments, developing control measures and developing Principal Mining Hazard Management Plans, the mine operator must give regard to the matters set out in schedule 19 of the Work Health and Safety Regulations 2012 (SA) (see appendix A).*

3. Preparation of Principal Mining Hazard Management Plans

When preparing a Principal Mining Hazard Management Plan it must:

1. Include the management of all aspects of the risk controls in relevant to the principal mining hazard; and
2. Be set out and expressed in a way that is easily understandable and made readily accessible for workers who use the principal mining hazard management plan.

Without limiting (1) and (2) above a Principal Mining Hazard Management Plan must:

- a) Describe the nature of the principal mining hazard to which the plan relates; and
- b) Describe how the principal mining hazard relates to other hazards at the mine; and
- c) Describe the analysis methods used in identifying the principal mining hazard to which the plan relates; and
- d) Include a record of the risk assessment conducted in relation to the principal mining hazard; and
- e) Describe the investigation and analysis methods used in determining the control measures to be implemented; and
- f) Describe all control measures to be implemented to manage risks to health and safety associated with the principal mining hazard; and
- g) Describe the arrangements in place for providing the information, training and instruction in relation to the principal mining hazard; and
- h) Refer to any design principles, engineering standards and technical standards relied on for control measures for the principal mining hazard.

Note: *Principal Mining Hazard Management Plans must form part of the existing Safety Management System (SMS) of a site or organisation. Some practical ways to integrate Principal Mining Hazard Management Plans into an existing Safety Management System are:*

- *Update the risk management procedure to include principal mining hazard management plans;*
- *Reference principal mining hazard management plans in other relevant procedures; and*

- *Reference relevant work instructions, policies and procedures in the principal mining hazard management plans.*

4. Review of Principal Mining Hazard Management Plans

Principal Mining Hazard Management Plans must be reviewed on a regular basis to ensure that risk control measures implemented as part of the Principal Mining Hazard Management Plan are current and effective. There is a requirement in the *Work Health and Safety Regulations 2012* (SA), (Regulations 38 and 618) that describe the requirement to review risk control measures.

However Principal Mining Hazard Management Plans must be reviewed in the event of any of the following:

- A notifiable or high potential incident associated with the principal mining hazard management plan;
- Awareness that a risk control measure is not effective in controlling the risk associated with the principal mining hazard management plan;
- A change in the workplace (physical change, process or procedure) that may change or introduce a new risk associated with the principal mining hazard management plan;
- A new hazard or risk is identified associated with the principal mining hazard management plan;
- Consultation with workers identifies that the risk control measures associated with the principal mining hazard management plan require review;
- A health and safety representative requests a review;
- An audit identifies that risk control measures are deficient in relation to the principal mining hazard management plan;
- Health monitoring results identify the need to move a worker due to a risk associated with the principal mining hazard management plan; or
- Legislative change.

Reviews of Principal Mining Hazard Management Plans and their associated control measures must be conducted in consultation with workers.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Regulations 2012 (SA), Chapter 10, Mines

Work Health and Safety Regulations 2012 (SA), Regulations 38, 612, 618, 627

Work Health and Safety Regulations 2012 (SA), Schedule 19

Appendix A:

Schedule 19 - Principal Mining Hazard Management Plans - additional matters to be considered

1. Ground or strata instability

The following matters must be considered in developing the control measures to manage the risks of ground or strata instability:

- a) the local geological structure;
- b) the local hydrogeological environment, including surface and ground water;
- c) the geotechnical characteristics of the rocks and soil, including the effects of time, oxidation and water on rock support and stability;
- d) any natural or induced seismic activity;
- e) the location and loadings from existing or proposed mine infrastructure such as waste dumps, tailings storage, haul roads and mine facilities;
- f) any previously excavated or abandoned workings;
- g) the proposed and existing mining operations, including the nature and number of excavations, the number and size of permanent or temporary voids or openings, backfilling of mined areas and stopes, abutments, periodic weighting and windblast;
- h) the proposed blasting activities, including airblast.

2. Inundation and inrush

The following matters must be considered in developing the control measures to manage the risks of inundation and inrush:

- a) the potential sources of inundation, including extreme weather, overflow or failure of levies and dam structures, failure or blocking of flow channels (either regular, overflow or emergency);
- b) the potential sources of inrush including current, disused or abandoned mine workings along the same seam or across strata, surface water bodies, backfill operations, highly permeable aquifers, bore-holes, faults or other geological weaknesses;
- c) the potential for the accumulation of water, gas or other substances or materials that could liquefy or flow into other workings or locations;
- d) the magnitude of all potential sources and maximum flow rates;
- e) the worst possible health and safety consequences of each potential source, including the accuracy of plans of other workings, variation in rock properties and geological weaknesses.

3. Mine shafts and winding operations

The following matters must be considered in developing the control measures to manage the risks associated with mine shafts and winding operations:

- a) the stability and integrity of the shaft;
- b) the potential for fires in underground operations, the shaft or winder areas;

- c) the potential for any unintended or uncontrolled movement of the conveyances within the shaft;
- d) the potential for a detached conveyance to fall down the shaft;
- e) the potential for fall of persons, equipment, materials or support structure into or within, the shaft;
- f) the potential for failure of, or damage to, health and safety related equipment and controls, including the following:
 - i. ropes bearing the weight of the shaft conveyance;
 - ii. controls and limiting devices to prevent overwind, overrun, over speed and the exceeding of other selected limits;
 - iii. equipment and controls to detect, prevent or cause the winder to stop in the event of slack rope, drum slip or tail rope malfunctions;
 - iv. braking systems including emergency brakes and systems for preventing free-fall of a conveyance;
 - v. warning systems for any emergency in the shaft;
 - vi. communication systems;
- g) the potential for injury to persons in a conveyance from material being carried in the conveyance or falling from another conveyance;
- h) the need to enable persons to escape from a stalled conveyance;
- i) the competency of the operator of the winder.

4. Roads and other vehicle operating areas

The following matters must be considered in developing the control measures to manage the risks associated with roads and other vehicle operating areas:

- a) mobile plant characteristics, including stopping distances, maneuverability, operating speeds, driver position, driver line of sight and remote control mobile plant;
- b) the effect on road conditions of expected environmental conditions during operating periods (including time of day, weather, temperature and visibility);
- c) the impact of road design and characteristics, including grade, camber, surface, radius of curves and intersections;
- d) the impact of mine design, including banks and steep drops adjacent to vehicle operating areas;
- e) the volume and speed of traffic and the potential for interactions between mobile plant with different operating characteristics, including heavy and light vehicles;
- f) the potential for interactions between mobile plant and pedestrians, including consideration of park up areas and driver access;
- g) the potential for interaction between mining mobile plant and public traffic;
- h) the potential for interaction between mobile plant and fixed structures, including overhead and underground power lines, tunnel walls and roofs.

5. Air quality, dust and other airborne contaminants

The following matters must be considered in developing the control measures to manage the risks associated with air quality, airborne dust and other airborne contaminants:

- a) the types of dust and other chemical and biological contaminants likely to be in the air from both natural sources, including naturally occurring asbestos, and introduced sources;

- b) the levels of oxygen, dust and other contaminants in the natural or supplied air of a mine;
- c) the temperature and humidity of the air;
- d) the length of exposure, having regard to extended shifts and reduced recovery periods.

6. Fire and explosion

The following matters must be considered in developing the control measures to manage the risks of fire and explosion:

- a) the potential sources of flammable, combustible and explosive substances and materials, both natural and introduced, including gas, dust, fuels, solvents and timber;
- b) the potential sources of ignition, fire or explosion, including plant, electricity, static electricity, spontaneous combustion, lightning, hot work and other work practices;
- c) the potential for propagation of fire or explosion to other parts of the mine.

7. Gas outbursts

The following matters must be considered in developing the control measures to manage the risks of gas outbursts:

- a) the potential for gas release into the working area of a mine from both natural and introduced sources in a concentration that could lead to fire, explosion or asphyxiation;
- b) the potential for accumulation of gases in working areas and abandoned areas of the mine;
- c) the nature of the gas that could be released;
- d) the gas levels in the material being mined;
- e) gas seam pressures.

8. Spontaneous combustion

The following matters must be considered in developing the control measures to manage the risks of spontaneous combustion:

- a) the potential for spontaneous combustion to occur in the material being mined, including by-
 - i. evaluating the history of the mine in relation to spontaneous combustion; and
 - ii. evaluating any adjacent or previous mining operations in the same seam; and
 - iii. the conduct of scientific testing;
- b) mine ventilation practices;
- c) the design of the mine;
- d) the impact of gases generated by spontaneous combustion on mine environmental conditions.

Appendix B:

ID	PMHMP - 02
Title	Surface Mobile Equipment
Management Strategy	<p>Due to the nature of operations at XYZ, Surface Mobile Equipment is utilised throughout the site. Surface Mobile Equipment is considered a principal mining hazard at XYZ, and a combination of risk control strategies are outlined in this Plan.</p> <p>Surface Mobile Equipment operations are managed as per relevant Surface Mobile Equipment Operational Procedures. (listed in references section of this plan)</p>
Relationship to other hazards	<p>Relationship to other principal mining hazards include:</p> <ul style="list-style-type: none"> • Fatigue • Light Vehicle operation • Falls from height • Stored Energy <p>Additional hazard relationships and control measures shall be managed on a task-by-task basis, via the Risk Management Process (ie. Job Safety Analysis)</p>
Identification methods	<p>The hazards and risks associated with Surface Mobile Equipment that form part of this principal mining hazard management plan were identified in consultation with workers through the review of:</p> <ul style="list-style-type: none"> • Hazard and Near Miss Reports • Incidents and Investigation Reports • Risk Registers • Industry Safety Alerts • Audits • Professional consultation • Industry standards, Codes of Practice, Guidelines, knowledge and practices • Meetings with workers (Health and Safety Committee, Toolbox, Pre Start Information)
Communication, Consultation and Training	<p>This Principal Mining Hazard Management Plan has been developed and reviewed in consultation with workers on site.</p> <p>Identified principal mining hazards shall be communicated to workers via</p> <ul style="list-style-type: none"> • Training sessions; • Inductions; • Toolbox topics; and • Reiterated through sign boards, Pre Start Information meetings and other communication channels used on site. <p>A hard copy of the most current version of this plan shall be made readily accessible to workers who use this plan.</p>

Risks Identified	Likelihood	Consequence	Risk Rating	Controls	Responsibility
Interaction between light vehicle and Surface Mobile Equipment (Mine / Crusher / ROM / Haul Road)	2	5	7	<ul style="list-style-type: none"> • Separation of heavy vehicles and light vehicles where practicable • Heavy vehicles / light vehicles Go-line design • Dual Run of mine (ROM) design • Pit Permit system • Design of intersections to be adequate for good visibility (windrow height) • Production supervisor inspections • Mine / Run of mine (ROM) Traffic Management Plan • Intersection control (stop signs) • Training and competency of all vehicle operators • Vehicle maintenance schedules / pre-starts • Fitness for work policy • Fatigue Management policy • Change Management process on design changes • 50 / 30 Metre exclusion zone • Reversing cameras / Collision detection devices • Green lights for haul trucks and dump trucks 	
Person struck by unplanned movement of Surface Mobile Equipment (including start-up whilst performing maintenance work)	1	4	5	<ul style="list-style-type: none"> • 'Vehicle Footprint' exclusion zone, maintenance exclusion zones • Positive mobile plant isolation • Radio Communication process • V-Drains / wheels chocked • Surface Mobile Equipment horn sounding prior to start-up • Parking standard • Stable and even ground conditions • Ensure all operators are trained / competent • Personal protective equipment (PPE) (Hard hat) • Gloves 	
Risk of interaction due to limited visibility of dump truck				<ul style="list-style-type: none"> • Separation of heavy vehicles and light vehicles where practicable • Pit Permit system • Design of intersections to be adequate for good visibility 	

	2	4	6	(windrow height) <ul style="list-style-type: none"> • Mine / Run of mine (ROM) Traffic Management Plan • Intersection control (stop signs) • Training and competency of all vehicle operators • Vehicle maintenance schedules / pre-starts • Fitness for work policy • Fatigue Management policy • Change Management process on design changes • 50 / 30 Metre exclusion zone • Reversing cameras / Collision detection devices • Green lights for haul trucks and dump trucks 	
Risk of collision due to Surface Mobile Equipment operator not being trained/ competent	1	4		<ul style="list-style-type: none"> • Checking of competence for new personnel • Training and verification of competency system for operators 	

References

- Code of Practice for Mobile Equipment and Light Vehicle Safety
- Site Traffic and Road Management Plan
- Parking Standard
- XYZ Risk Management Procedure

Procedures

- SOP.02 Unloading Side Tippers
- SOP.03 Coupling Prime Movers
- SOP. 04 Water Carting Operation
- SOP.05 Grader Operations
- SOP.06 Uncoupling Prime Movers
- SOP.07 Haul Truck Operations
- SOP.08 Front End Loader Operations
- SOP.09 Refueling Vehicles and Equipment
- SOP.10 Excavator Operations
- SOP.11 Track Dozer Operations

Reviewed	29/11/16	Next Review	29/11/17	Reviewers	Joe Bloggs
Notes					

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The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

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Disclaimer

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Forward

On the 1st January 2014 there were changes to the *Work Health and safety Regulations 2012* (SA) and Chapter 10 (Mines) was enacted. A major component of the requirements of Chapter 10 is Part 2, Division 2 — Principal Mining Hazard Management Plans.

Regulation 627 states that a mine operator must identify all Principal Mining Hazards at the mine, and Regulation 628 states that a mine operator must prepare a Principal Mining Hazard Management Plan for each Principal Mining Hazard identified.

This template will assist and guide you through developing your site specific Principal Mining Hazard Management Plan.

Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation's structure.

1. Remove all **“(insert company name)”** sections and replace with registered business name
2. Remove all **“(insert name of quarry/mine)”** sections and replace with quarry/mine pit name.
3. Remove all **“(insert senior management position e.g. site manager)”** and replace with relevant position
4. Remove all **“(insert location)”** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all **“Note”** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Principal Mining Hazard Management Plan Template

(Insert Company Name and Company Logo or Site Photo)

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1. Purpose

The purpose of the *(insert company name)* Principal Mining Hazard Management Plan (PMHMP) is to set out a risk based control plan on how Principal Mining Hazards are managed on site at *(insert name of quarry/mine)*. The plan is designed to tie in the multiple risk management methods used on site, and bring them together in a single management plan.

The management plan also sets out roles, responsibilities, and methods for identifying, assessing, controlling and reviewing Principal Mining Hazards associated with the mining / quarrying operations at *(insert name of quarry/mine)*.

This management plan is designed to meet compliance with Chapter 10, Part 2, Division 2 of the *Work Health and Safety Regulations 2012* (SA).

All workers at the *(insert name of quarry/mine)* are required to adhere to the control measures set out in this plan.

2. Scope

This Management Plan applies to all *(insert name of quarry/mine)* Mining Lease, Exploration Leases and surrounding tenements and operations.

3. Definitions

Principal Mining Hazard – any activity, process, procedure, plant, structure, substance, situation or other circumstance relating to the carrying out of mining operations that has a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents, in relation to any of the following:

- (a) Ground or strata failure;
- (b) Inundation or inrush of any substance;
- (c) Mine shafts and winding operations;
- (d) Roads or other vehicle operating areas;
- (e) Air quality or dust or other airborne contaminants;
- (f) Fire or explosion;
- (g) Gas outbursts;
- (h) Spontaneous combustion; or
- (i) A hazard identified by the mine operator of a mine.

4. References

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

5. Roles and Responsibilities

Note: The below is an example only and will need to be modified to suit your organisations structure.

5.1 Officers (Managing Director, Owner, etc.)

- Ensure that adequate resources are available to ensure that the requirements of the plan are satisfied;
- Ensure that this plan is communicated effectively in accordance with section 6.0; and
- Understand the intent and content of this plan.

5.2 Site Manager

- Make adequate resources available to ensure that the requirements of the plan are satisfied;
- Verify that all persons with responsibilities under this plan, including contractors, have the necessary competencies and resources available to comply with this plan;
- Oversee operations and ensure compliance to the plan;
- Ensure all legislative obligations are met; and
- Ensure that this plan is communicated effectively in accordance with section 6.0.

5.3 Supervisors

- Inspect the operational areas and manage residual risk using risk management tools provided;
- Comply with the requirements of this plan and monitor that the systems and procedures established as part of the plan are being implemented and followed in their area of responsibility;
- Ensure personnel under their control remain aware of their responsibilities under this plan;
- Ensure that only competent and authorised personnel operate plant and equipment;
- Promptly highlight to their relevant manager, any incidents or potential incidents which indicate that a hazard identified in this plan is not adequately covered or controlled by this plan; and
- Ensure that this plan is communicated effectively in accordance with section 6.0.

5.4 Work Health and Safety Personnel

- Ensure this plan is reviewed as per schedule, or in light of any changes in operation, legislation, relevant incident, technology, audit findings, or any other trigger;
- Develop audit material and conduct audits to ensure the controls listed in this plan are in place and are effective;
- Coach, mentor and train workers in their requirements under this plan; and
- Ensure that this plan is communicated effectively in accordance with section 6.0.

5.5 All Workers

- Comply with the requirements of this plan and monitor that the systems and procedures established as part of the plan are being implemented and followed in practice in their work area;
- Ensure self and co-workers remain aware of their responsibilities under this plan and carry them out;
- Ensure that they only operate plant and equipment that they have been deemed competent and are authorised to operate; and
- Promptly highlight to their supervisor any incident or potential incident which indicates that a hazard relating to the content of this plan is not adequately covered by this plan.

6. Communication, Consultation and Training

This Principal Mining Hazard Management Plan shall be developed and reviewed in consultation with workers on site. Identified Principal Mining Hazards shall be communicated to workers via inductions and reiterated through sign boards, pre-start meetings, toolbox meetings and other formal communication channels used on site.

A hard copy of this document shall be kept on site at the *(insert location)* and made accessible to workers and visitors.

7. Risk Assessment Methodology

7.1 Context

The Principal Mining Hazard Management Plan and associated risk assessment and control methodologies are conducted within the context of the *(insert company name)* operating environment and organisational goals. The risk control methods shall incorporate *(insert company name)* procedures, however shall not override organisational management systems.

If there are two conflicting procedures or management strategies, then the procedure that offers the highest level of protection to personnel, assets and the environment shall be adopted.

7.2 Risk Assessment

Principal Mining Hazards have been identified by the following methods:

Note: The below is an example only and will need to be modified to suit your organisation:

- *Hazard reports;*
- *Risk registers;*
- *Investigations;*
- *Audits;*
- *Professional consultation;*
- *Industry standards, knowledge and practices; and*
- *Health and Safety Representative Meetings, toolbox talks and Pre Shift Information sessions.*

Risk analysis and evaluation is completed in compliance with the *(insert company name)* Risk Management Procedure, using the *(insert company name)* risk matrix. Risk assessments shall be conducted in teams, with signoff required by Work Health and Safety Personnel, Contractor Management and *(insert company name) (insert senior management position e.g. Site Manager)*.

7.3 Risk Treatment

Risk Treatment shall be conducted in line with industry best practice, controls have been selected and applied using the hierarchy of controls, in consultation with industry experts, safety professionals and operational personnel. The Principal Mining Hazard Management Plan shall state critical controls for risks. There may be additional controls added on a work task basis, which shall be documented within the relevant Job Safety Analysis (JSA).

Risk controls stated in this plan are to be incorporated in all tasks where Principal Mining Hazards are encountered.

7.4 Risk Review

(insert company name) Principal Mining Hazard Management Plans shall be reviewed annually, or sooner as required (e.g. when conditions change, new hazards or processes are adopted, post incident), by a risk assessment team including Work Health and Safety Personnel, Contractor Representatives, *(insert company name)* Management, Subject Matter Experts and other participants where required. Review dates shall be updated within this plan and recorded in the *(insert location)*.

8. Principal Mining Hazards

The below list of Principal Mining Hazards has been identified as applicable at the *(insert location) (insert name of quarry/mine)*.

Principal Mining Hazard	
1	Eg: SME (SME vs SME, SME vs LV, SME vs
2	
3	
4	
5	
6	
7	

9. Principal Mining Hazard Management Plans

Note: The below Principal Mining Hazard Management Plan is an example only and will need to be modified to suit the particular Principal Mining Hazard and your operation.

ID	PMHMP - 01
Title	Surface Mobile Equipment (SME)

Management Strategy	<p>Due to the nature of operations at XYZ, Surface Mobile Equipment (SME) is utilised throughout the site. Surface Mobile Equipment is considered a Principal Mining Hazard at XYZ, and a combination of risk control strategies are outlined in this Plan.</p> <p>Surface Mobile Equipment operations are managed as per relevant Surface Mobile Equipment Operational Procedures. (listed in references section of this plan)</p>				
Relationship to other hazards	<p>Relationship to other Principal Mining Hazards include:</p> <ul style="list-style-type: none"> • Fatigue • Light Vehicle operation • Falls from height • Stored Energy <p>Additional hazard relationships and control measures shall be managed on a task-by-task basis, via the Risk Management Process (i.e. Job Safety Analysis)</p>				
Identification methods	<p>The hazards and risks associated with Surface Mobile Equipment that form part of this Principal Mining Hazard Management Plan were identified in consultation with workers through the review of:</p> <ul style="list-style-type: none"> • Hazard and Near Miss Reports • Incidents and Investigation Reports • Risk Registers • Industry Safety Alerts • Audits • Professional consultation • Industry standards, Codes of Practice, Guidelines, knowledge and practices • Meetings with workers (Health and Safety Committee, Toolbox, Pre Start Information) 				
Communication, Consultation and Training	<p>This Principal Mining Hazard Management Plan has been developed and reviewed in consultation with workers on site.</p> <p>Identified Principal Mining Hazards shall be communicated to workers via</p> <ul style="list-style-type: none"> • Training sessions; • Inductions; • Toolbox topics; and • Reiterated through sign boards, Pre Start Information meetings and other communication channels used on site. <p>A hard copy of the most current version of this plan shall be made readily accessible to workers who use this plan.</p>				
Risks Identified	Likelihood	Consequence	Risk Rating	Controls	Responsibility

Interaction between light vehicle and Surface Mobile Equipment (Mine / Crusher / Run Of Mine / Haul Road).	C	5	E	<ul style="list-style-type: none"> • Separation of Heavy Vehicles and Light Vehicles where practicable • Heavy Vehicles / Light Vehicles Go-line design • Dual Run Of Mine design • Pit Permit system • Design of intersections to be adequate for good visibility (windrow height) • Production supervisor inspections • Mine / Run Of Mine Traffic Management Plan • Intersection control (stop signs) • Training and competency of all vehicle operators • Vehicle maintenance schedules / pre-starts • Fitness for work policy • Fatigue Management policy • Change Management process on design changes • 50/30 Metre exclusion zone • Reversing cameras / Collision detection devices • Green lights for haul trucks and dump trucks 	
Person struck by unplanned movement of Surface Mobile Equipment (including start-up whilst performing maintenance work).	C	4	H	<ul style="list-style-type: none"> • 'Vehicle Footprint' exclusion zone, maintenance exclusion zones • Positive mobile plant isolation • Radio Communication process • V-Drains / wheels chocked • Surface Mobile Equipment horn sounding prior to start-up • Parking standard • Stable and even ground conditions • Ensure all operators are trained / competent • Personal Protective Equipment (Hard hat) • Gloves 	

Risk of interaction due to limited visibility of dump truck operators.	D	3	M	<ul style="list-style-type: none"> • Separation of Heavy Vehicles and Light Vehicles where practicable • Pit Permit system • Design of intersections to be adequate for good visibility (windrow height) • Mine / Run Of Mine Traffic Management Plan • Intersection control (stop signs) • Training and competency of all vehicle operators • Vehicle maintenance schedules / pre-starts • Fitness for work policy • Fatigue Management policy • Change Management process on design changes • 50/30 Metre exclusion zone • Reversing camera / Collision detection devices • Green lights for haul trucks and dump trucks 	
Risk of collision due to Surface Mobile Equipment operator not being trained / competent.	D	2	L	<ul style="list-style-type: none"> • Checking of competence for new personnel • Training and verification of competency system for operators 	
References	<ul style="list-style-type: none"> • Code of Practice for Mobile Equipment and Light Vehicle Safety • Site Traffic and Road Management Plan • Parking Standard • XYZ Risk Management Procedure Procedures <ul style="list-style-type: none"> • SOP.02 Unloading Side Tippers • SOP.03 Coupling Prime Movers • SOP. 04 Water Carting Operation • SOP.05 Grader Operations • SOP.06 Uncoupling Prime Movers • SOP.07 Haul Truck Operations • SOP.08 Front End Loader Operations • SOP.09 Refueling Vehicles and Equipment • SOP.10 Excavator Operations • SOP.11 Track Dozer Operations 				
Reviewed	23/11/16	Next Review	23/11/17	Reviewers	Joe Bloggs
Notes					

10. Principal Mining Hazard Management Plans (blank template)

ID					
Title					
Management Strategy					
Relationship to other hazards					
Identification methods					
Communication, Consultation and Training					
Risks Identified	Likelihood	Consequence	Risk Rating	Controls	Responsibility
				•	
				•	
				•	
				•	
References	•				
Reviewed		Next Review		Reviewers	
Notes					

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

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OCCUPATIONAL HEALTH &
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Hazardous Chemicals Dangerous Substances Management Guide

Promoting Work Health and Safety in the Workplace

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Hazardous Chemicals and Dangerous Substances Management Guide

AIM

This Guidance Material has been developed to provide small to medium mine and quarry operators with an understanding of the legislative requirements for Hazardous Chemical and Dangerous Substances Management.

Applicable South Australian Legislation

- *Work Health and Safety Act 2012 (SA)*;
- *Work Health and Safety Regulations 2012 (SA)*;
- *Dangerous Substances Act 1979 (SA)*; and the
- *Dangerous Substances Regulations 2002 (SA)*.

Legislative requirements in relation to explosives and the transport of dangerous substances can be found in more detail in other referenced publications in **Appendix G**.

1. What are Hazardous Chemicals and Dangerous Substances?

Legislative and Compliance References:

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Dangerous Substances Act 1979 (SA)

Dangerous Substances Regulations 2002 (SA)

Globally Harmonised System of Classification and Labelling of Chemicals (GHS) 3rd Edition

Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code)

Explosives Act 1936 (SA)

Explosives Regulations 2011 (SA)

1.1. Hazardous Chemicals

Hazardous chemicals are substances, mixtures and articles that can pose a health or physical hazard to humans, other organisms or the environment.

Some processes will produce hazardous chemicals as by-products or waste. These hazards may not be easily identified when generated at the workplace.

For example: hydrogen sulphide in a sewer or diesel exhaust fumes from truck engines. Information on by-products may be available from a Safety Data Sheet (SDS), but not always.

You should find out what hazardous chemicals may be produced from work activities. For example: use of welding rods may release toxic fumes or vapours, and grinding metals may release toxic metal dust or fumes.

There are two broad types of hazards that are associated with hazardous chemicals:

Health hazards:

These are the properties of a chemical that cause adverse health effects. Adverse health effects can be acute (short term) or chronic (long term).

Typical acute health effects include headaches, nausea or vomiting and skin irritation or corrosion, while chronic health effects include asthma, dermatitis, nerve damage or cancer.

Examples of chemicals with health hazards include poisonous (toxic) chemicals, chemicals which cause skin corrosion (such as acids) and carcinogens (cancer causing chemicals).

Exposure to these chemicals usually occurs through inhalation, ingestion or skin contact.

Physicochemical hazards:

These are physical or chemical properties that can result in immediate injury to people or damage to property. Inappropriate handling can often result in injury to people and/or damage to property.

Examples of chemicals with physicochemical hazards include flammable liquids, compressed gasses and explosives.

Infectious substances, radioactive sources and environmental poisons are not considered hazardous chemicals.

For legal purposes, the *Work Health and Safety Regulations 2012* (SA), defines a hazardous chemical as any substance, mixture or article that satisfies the criteria for a hazard class in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

However, it does not include a substance, mixture or article that satisfies the criteria solely for one the following hazard classes:

- a) acute toxicity—oral—category 5;
- b) acute toxicity—dermal—category 5;
- c) acute toxicity—inhalation—category 5;
- d) skin corrosion/irritation—category 3;
- e) serious eye damage/eye irritation— category 2B;
- f) aspiration hazard—category 2;
- g) flammable gas—category 2;
- h) acute hazard to the aquatic environment—category 1, 2 or 3;
- i) chronic hazard to the aquatic environment—category 1, 2, 3 or 4;
- j) hazardous to the ozone layer.

12. Dangerous Substances

Dangerous substances and dangerous goods are listed in the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (“ADG Code”). The ADG Code contains a list of all chemicals classified as dangerous goods for transport. When these chemicals are stored they are known as dangerous substances.

Dangerous substances are chemicals that include corrosive, flammable, explosive, spontaneously combustible, toxic, and oxidising or water reactive substances.

Dangerous substances include items, such as petrol, liquefied petroleum gas (LPG), pesticides, fertilisers and acids. Dangerous substances will normally have one or more health and physiochemical properties and may also be classed as hazardous chemicals.

A Safety Data Sheet will identify if a chemical is a hazardous chemical and also identify in Section 14 of the *Work Health and Safety Regulations 2012* (SA) when a substance is classified as a dangerous good. This should also be stated on the chemicals label.

2. Prohibited and Restricted Chemicals

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations: 380 - 388
<i>Work Health and Safety Regulations 2012 (SA)</i>	Schedules: 10, Restricted Carcinogens, 20, Substance prohibited in underground mines

Schedule 10 of the *Work Health and Safety Regulations 2012 (SA)* prohibits some cancer causing substances (carcinogens) from use and allows others only to be used in specific circumstances.

However, it is unlikely, that these substances would be used in a small to medium mine or quarry process.

Note: *Underground mining operations have prohibitions and restrictions set out in Schedule 20 of the Work Health and Safety Regulations 2012 (SA).*

3. Who has a Duty to Manage Hazardous Chemicals and Dangerous Substances?

The following is the South Australian Work Health and Safety legislative requirements for Hazardous Chemicals for a 'person conducting a business or undertaking' (PCBU).

A PCBU is the current legal term for a business or employer under the South Australian Work Health and Safety legislation.

The aim of the Work Health and Safety Regulations is to ensure adequate information is given to workers so that chemicals can be stored and handled safely on site.

As small mines and quarries are likely to have a 'senior representative' or 'site manager', the responsibilities for the PCBU are written in these terms for the majority of this document.

Work Health and Safety Regulations 2012 (SA)

Chapter 7 – Hazardous chemicals

Part 1 – General workplace management

Division 2 – Obligations relating to data sheets and other matters

3.1. Labelling Hazardous Chemicals

A PCBU must ensure that:

- Containers of hazardous chemicals used, supplied or produced at the workplace are labelled correctly. This includes hazardous chemicals that are transferred or decanted from their original containers at the workplace.
- Each label includes information which identifies the chemical, its ingredients, basic health information, etc., in accordance with Schedule 9, Part 3 of the *Work Health and Safety Regulations 2012 (SA)*.
- Hazardous chemicals in enclosed systems, such as pipework or reaction vessels, are identifiable to any person who may be exposed to the contents.

- Where a container does not have a label, it must be stored by itself and not used until it has been correctly identified and labelled. If the substance cannot be identified then it must be disposed of.

3.2 Safety Data Sheets (SDS)

A PCBU must:

- Obtain the relevant Safety Data Sheets from the manufacturer, importer or supplier no later than when the hazardous chemical is first supplied to the workplace, or ideally, before the hazardous chemical is to be used.
- Ensure that the Safety Data Sheets are accessible to any worker, emergency services person or anyone else who may be exposed to the hazardous chemical.

3.3 Hazardous Chemicals Register

A PCBU must ensure that:

- A hazardous chemicals register is kept and maintained.
- The register is readily accessible to workers and emergency services staff.
- The register includes details of all hazardous chemicals used, handled or stored at the workplace, as well as their corresponding Safety Data Sheets.

3.4 Manifest of Hazardous Chemicals

- A PCBU will be required to prepare a manifest once manifest quantities are exceeded. These quantities are defined in **Appendix C**.
- The manifest must include details, such as the PCBU contact information, the types and quantities of hazardous chemicals stored at the site, and a site plan of the workplace identifying where the hazardous chemicals are located, refer to schedule 12 of the *Work Health and Safety Regulations 2012* (SA).
- If manifest quantities are exceeded you will also need to submit your emergency plan to the relevant emergency services.

3.5 Placards

A PCBU is required to put up placards once placard quantities of a chemical are exceeded. These quantities are defined in **Appendix C**. The requirements for placards and outer warning placards are defined in Schedule 13 of the *Work Health and Safety Regulations 2012* (SA).

Work Health and Safety Regulations 2012 (SA)

Chapter 7 – Hazardous chemicals

Part 1 – Hazardous chemicals

Division 5 – Control of Risk - Obligations of person conducting business or undertaking

3.6. Managing Risks

A PCBU must manage risks to health and safety associated with the using, handling, generating or storing of hazardous chemicals in the workplace.

A PCBU must:

- Identify any risks of physical or chemical reactions.
- Ensure ignition sources are not introduced into areas where a fire or explosion hazard exists.
- Keep hazardous chemicals stable.
- Contain and manage spills.
- Protect pipe work and containers that hold hazardous chemicals from impact.
- Keep and maintain appropriate firefighting, emergency and safety equipment.
- Review the hazard control measures every 5 years.

Safe Work Australia has an approved *Code of Practice - Managing Risks of Hazardous Chemicals in the Workplace* which is a practical guide to achieving compliance.

This publication is available on the SafeWork SA website: <http://www.safework.sa.gov.au>.

3.7. Airborne Contaminants / Workplace Exposure Standards (WES)

- A PCBU must ensure that no person at a workplace is exposed to a substance in airborne concentration that exceeds the workplace exposure standard for that substance.
- Air monitoring may be required if a PCBU is not certain whether or not Workplace Exposure Standards are being exceeded or to determine if there is a risk to health.
- These records must be made available to employees, and are to be held for a period of no less than 30 years.
- A PCBU must also manage hazardous atmospheres to ensure safe oxygen levels for workers and no build-up of combustible gas, vapour, mist, fume or dust; as well as control of ignition sources.

3.8. Health Monitoring

- A PCBU must provide health monitoring where there is significant risk to the worker's health due to either ongoing exposure to hazardous chemicals referred to in Schedule 14 of the *Work Health and Safety Regulations 2012* (SA), or any other substance where there is a risk to health and a valid way of detecting a health effect or determining exposure.
- There are specific requirements for workers using lead or doing asbestos removal work as detailed in the *Work Health and Safety Regulations 2012* (SA), Regulation 395, Regulation 405-418 (Lead) and Regulation 435 - 444 (Asbestos).

- Health monitoring must be conducted by a competent medical practitioner (Safe Work Australia website provides guidance).
- In situations where exposure to a hazardous substance could lead to disease or ill health, and where there is a means of measuring the effect, the PCBU must take all reasonable steps to obtain the health monitoring report and undertake any remedial action that is needed.
- The health monitoring must be conducted at the expense of the PCBU and the records must be kept for 30 years (Asbestos records must be kept for 40 years).
- The requirements for health monitoring must be explained to the worker before they commence work using a hazardous chemical, and a copy of the results of health monitoring must be given to the worker.
- If there is an adverse health result, i.e. the worker has an illness, or the report contains recommended remedial measures, a copy of the report must also be forwarded to SafeWork SA.

3.9. Induction, Information, Training and Supervision

A PCBU must:

- Provide adequate supervision, instruction and training to all employees who may be exposed to hazardous chemicals in the workplace.
- Ensure that instruction and training is adequate and addresses any risks identified in a risk assessment.
- Ensure that instruction and training is provided in a suitable manner for all employees.

3.10. Dangerous Substances Legislative Requirements

The aim of the dangerous substances legislation is to ensure the safe storage and handling of dangerous substances to protect workers, the public and the environment from harm.

A licence may be required for the keeping of prescribed quantities of dangerous substances, LP gas (Class 2.1), flammable liquids (class 3), toxic substances (Class 6) and corrosive substances (Class 8).

A person must, in keeping, handling, conveying, using or disposing of a dangerous substance, or in transporting dangerous goods, take such precautions and exercise care to avoid danger to the health and safety of any person, the safety of property and prevent the risk of environmental harm.

4. Record, Assess and Manage Risks Associated with Hazardous Chemicals

The following table provides Site Managers with a step by step overview of the requirements to record assess and manage risks associated with hazardous chemicals.

	ACTION	DESCRIPTION
1	Hazardous Chemicals are identified.	<p>Site Managers are responsible for determining all hazardous chemicals used, handled or generated within their operations. Some hazardous chemicals may also be classed as dangerous substances.</p> <p><u>Refer to section 1.0 and 2.0</u></p>
2	Access and review Safety Data Sheets (SDSs) for all chemicals.	<p>Safety Data Sheets contain information on how to store and handle a chemical safely. It is a legislative requirement that Safety Data Sheets must be accessible to workers via the site hazardous chemicals register.</p> <p><u>Refer to section 5.0</u></p>
3	Conduct Risk Assessment (if needed) and Implement Controls.	<p>A risk assessment should allow you to identify controls needed to use a chemical safely on site. The Risk Assessment may include consideration of the storage requirements, spill or emergency response issues, personal protective equipment (PPE), first aid, monitoring and disposal requirements.</p> <p><u>Refer to section 6.0</u></p>
4	Record chemical on site register, and develop a manifest (if needed by assessing the quantity on site).	<p>List the chemicals on site Register by product name or identifier. Based on the quantity determine if a dangerous substances licence is needed or if the chemical needs to be entered on a manifest for the Emergency Services.</p> <p><u>Refer to section 7.0</u></p>
5	Determine what emergency equipment is required.	<p>The Safety Data Sheet will provide a guide as to what controls are required to prevent worker exposure as well as if emergency response equipment and personal protective equipment is required. Emergency Response procedures should be documented in the site Emergency Response Plan.</p> <p><u>Refer to section 10.0 and 11.0</u></p>
6	Establish storage areas, placarding (if required) and signage.	<p>Safety Data Sheets provide guidance on appropriate storage requirements. It is a Legislative requirement that all chemicals have appropriate labelling and if in large or bulk (legislated) quantity have placards at their location and site entry points.</p> <p><u>Refer to sections 12.0, 13.0, 15.0</u></p>

7	Ensure all chemicals are correctly labelled.	<p>All chemicals must be correctly labelled. Ensure labels for chemicals purchased meet GHS labelling requirements from 1 Jan 2017. Decanted or unpackaged chemicals will need to be labelled as per the <i>Code of Practice for Labelling Hazardous Chemicals</i>. Bulk or Transport containers will be labelled to the ADG Code via Transport Placards.</p> <p><u>Refer to section 14.0</u></p>
8	Ensure workers are inducted and trained in all safety requirements.	<p>All workers who interact with a chemical must be inducted and trained in all aspects of its associated hazards, handling, personal protective equipment requirements, storage and emergency response.</p> <p><u>Refer to section 16.0</u></p>
9	Establish monitoring and review programs / schedule.	<p>Monitoring, auditing, inspection and review programs ensure the integrity of systems and controls.</p> <p><u>Refer to sections 18.0 and 19.0</u></p>

To assist mines and quarries meet the above obligations, the following information provides guidance on actions required to manage hazardous chemicals in the workplace.

5. Safety Data Sheets (SDS)

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 330, 339, 344
<i>Work Health and Safety Regulations 2012 (SA)</i>	The Safety Data Sheet must comply with clause 1 of Schedule 7 unless Regulation 331 applies.

5.1. What are Safety Data Sheets?

Safety Data Sheets contain critical information relating to a supplied Hazardous Chemical.

A Safety Data Sheet for a hazardous chemical must state the following information about the chemical:

- Section 1: Identification: Product identifier and chemical identity;
- Section 2: Hazard(s) identification;
- Section 3: Composition and information on ingredients, in accordance with Schedule 8;
- Section 4: First aid measures;
- Section 5: Firefighting measures;
- Section 6: Accidental release measures;
- Section 7: Handling and storage, including how the chemical may be safely used;
- Section 8: Exposure controls and personal protection;

- Section 9: Physical and chemical properties;
- Section 10: Stability and reactivity;
- Section 11: Toxicological information;
- Section 12: Ecological information;
- Section 13: Disposal considerations;
- Section 14: Transport information;
- Section 15: Regulatory information;
- Section 16: Any other relevant information.

Safety Data Sheets are a primary source of information to assist with conducting risk assessments and providing induction and training to workers.

52. Obligations to obtain and supply Safety Data Sheets

Site Managers must ensure that Safety Data Sheets are available for all hazardous chemicals used and stored within their site.

Suppliers have the obligation to provide Safety Data Sheets with the first supply of a hazardous chemical (*Work Health and Safety Regulations 2012 (SA)*, Regulation 339) to a workplace.

If no Safety Data Sheet is supplied upon receipt of any substance, Site Managers should contact the supplier, manufacturer or importer to obtain the appropriate Safety Data Sheet before use.

Safety Data Sheets may also be downloaded from the manufacturer's website (although not all manufacturers provide their Safety Data Sheets online, they can be requested via email).

Site Managers must ensure that:

- Safety Data Sheets are obtained and reviewed prior to use of the substance.
- Safety Data Sheets supplied must meet the requirements of Schedule 7 of the *Work Health and Safety Regulations 2012 (SA)*.
- All Safety Data Sheets must be less than 5 years old (manufacturers are required to review them every 5 years). Generic Safety Data Sheets supplied by third party database companies or those obtained from international sources, should not be relied upon as they may not contain all original manufacturers' information.
- All Safety Data Sheets must be made readily available to workers who may use a hazardous chemical. This could be in the form of hard copy near the substance or digital copy accessed via mobile technology.

6. Hazard Identification, Risk Assessment and Control

Legislative and Compliance References:

Work Health and Safety Regulations 2012 (SA)

Regulations 32 - 38, 351, 353, 354
Risk Assessments are detailed in the *Code of Practice - Managing Risks of Hazardous Chemicals in the Workplace*

While general information relating to known hazards and risks associated with any chemical can be found within the Safety Data Sheets.

Site Managers who do not know the appropriate controls for exposure to a hazardous chemical should conduct a risk assessment to determine the hazards associated with its storage and use. The findings of the risk assessment will determine the requirements for **Sections 7.0 – 19.0** of this document.

MAQOHSC can offer assistance in the risk assessment process.

The details on how to conduct a hazardous chemical risk assessment are found in the *Code of Practice - Managing Risks of Hazardous Chemicals in the Workplace*. An example of a Risk Assessment worksheet is provided in **Appendix B**.

The following table provides a general overview of the considerations when conducting a risk assessment:

	ACTION	DESCRIPTION
1	What is the chemical / substance?	<p>Review Safety Data Sheets for proprietary chemicals and site work processes to identify other exposures e.g. work process generated dust or welding fumes. Consider the types of substances and the properties.</p> <ul style="list-style-type: none"> Physical Form of the substance (powder, liquid, gel, gas) and concentration Chemical and physical properties
2	How can workers be exposed to chemicals? Consult with workers.	<ul style="list-style-type: none"> Nature of the work being undertaken. Where will the substance be used? Routes of exposure (inhaled, swallowed (ingested), skin, eyes (absorbed)) Frequency of exposure (how often and for how long?) Consider Exposure Standards Section 17.0
3	What would the effects of any exposure be?	<ul style="list-style-type: none"> skin / eye, irritation poisoning aspiration burns consider both short and long term health effects e.g. carcinogens
4	Are there any other hazards? What are other potential impacts?	<ul style="list-style-type: none"> Will there be adverse effects if accidentally mixed with other chemicals? e.g. toxic fumes, noxious fumes, explosive gases? Is it flammable? e.g. are there any ignition sources? Can it combust due to environmental factors? e.g. contact with water, air, extreme heat or cold? Potential for explosion? e.g. due to compressive build up, explosive material, vapour release?

5

What are the potential environmental impacts?

- Is there potential for harm to the environment through its use, storage or disposal?
- Can other organisms / animals come into contact with the chemical?
- Is there the chance that a spillage could enter a drain, stormwater or other watercourse?

7. Registers and Manifests

Legislative and Compliance References:

<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 346, 347, 348
<i>Work Health and Safety Regulations 2012 (SA)</i>	Schedules 11, 12

7.1. The Difference between a Hazardous Chemicals Register and Manifest

A hazardous chemicals register is a list of hazardous chemicals on site, accompanied by the current Safety Data Sheets for each of those chemicals. It does not include hazardous chemicals in-transit or consumer products.

Under the *Work Health and Safety Regulations 2012 (SA)*, a hazardous chemicals register is required to be prepared and kept up-to-date so that people can easily find information about chemicals stored, handled or used at the site. An example of a combined hazardous substance register / Manifest is provided in **Appendix A**.

Since manufacturers and importers of hazardous chemicals are required to update their Safety Data Sheets at least every five years, you will need to obtain a new Safety Data Sheet from the chemical supplier periodically to ensure you have the most up-to-date and current Safety Data Sheets.

7.2. What chemicals don't need to be recorded on the Register?

Work Health and Safety Regulations 2012 (SA), Regulation 344 and Regulation 346, determine that chemicals which are consumer products (such as hand cleaner, detergents, bug sprays, general household cleaning and office products) are not required to be recorded on a site register nor have Safety Data Sheets maintained, as long as they are used in a method and quantity consistent with domestic household use.

8. Dangerous Substances Licences

Determining the total stored quantities of Liquefied Petroleum Gas (LPG), flammable liquids (Class 3), toxic substances (Class 6) and corrosive substances (Class 8) is needed to assess if the site needs a licence to keep Dangerous Substances.

8.1. Liquefied Petroleum Gas (LPG)

A licence is required for any premises which keeps more than 250 kilograms of LPG.

82. Flammable Liquids (Class 3)

A licence is not required if the following quantities are kept:

- a) up to 120 litres of Class 3, Packing Group I or II provided that it is contained in packaging which has a capacity of less than 60 litres;
- b) up to 1 200 litres of Class 3, Packing Group III;
- c) up to 5 000 litres of Class 3, Packing Group I or II and up to 5 000 litres of Class 3, Packing Group III provided that the premises have an area of not less than two hectares and in or on which premises there is carried on a rural industry and that:
 - I. any above ground storage is separated from protected works as defined in AS 1940 The Storage and Handling of Flammable and Combustible Liquids and any part of the boundary of the land by not less than 15 metres; and
 - II. the area of ground around the storage is kept clear of combustible vegetation or refuse for a distance of not less than 3 metres;
- d) any quantity of Class 3, Packing Group I or II provided that it is contained in packaging which has a capacity not exceeding 5 litres and where the substances as packaged are manufactured products;
- e) any quantity of Class 3, Packing Group III provided that it is contained in packaging which has a capacity not exceeding 25 litres and where the substances as packaged are manufactured products.

Note: Any quantity of flammable liquids that exceeds (a) to (e) above will require a licence to keep.

83. Toxic and Corrosive Substances (Classes 6 and 8)

A licence is required for greater than 250 (kg or L) of Packing Group I, 2000 (kg or L) of Packing Group II or 5000 (kg or L) of Packing Group III.

If smaller quantities of one or more Packing Groups are stored, use the equation below to determine if a licence is required.

Do I need a licence for Class 6 and 8 substances?

If the following equation is true

$$\frac{LI+SI}{250} + \frac{LII+SII}{2000} + \frac{LIII+SIII}{5000} \leq 1 \text{ then a licence is not required}$$

Where

LI	the volume in litres of liquids substances in packing group I
SI	the mass in kg of solid substances in packing group I
LII	the volume in litres of liquid substances in packing group II
SII	the mass in kg of solid substances in packing group II
LIII	the volume in litres of liquid substances in packing group III
SIII	the volume in kg of solid substances in packing group III

An application to store dangerous substances can be made via the SafeWork SA website.

9. Hazardous Chemical Manifest

A manifest is a written summary of specific types of hazardous chemicals with physicochemical and acute toxicity hazards that are used, handled or stored onsite and is primarily for chemical emergency planning.

9.1. What chemicals need to be recorded on the Manifest?

A manifest is required where the quantities of those hazardous chemicals exceed the threshold amounts found in **Appendix C**.

Its primary purpose is to provide the emergency services organisations (MFS and CFS) with information on the quantity, classification and location of hazardous chemicals at the workplace. It also contains information such as site plans and emergency contact details.

The manifest must comply with the requirements of Schedule 12 of the *Work Health and Safety Regulations 2012* (SA) and it must be updated as soon as practicable after any change to the amount or types of chemicals being used, stored, handled or generated on site.

The manifest must include:

- Name of responsible person or business;
- Address of the workplace;
- Version history and review date;
- Business hours and after hours contact details of at least two persons (if an incident occurs);
- Name of chemical, proper shipping name, UN number, class and division as stated in Table 3.2.3 of the ADG Code;
- Quantity / volume / weight (generally record the largest amount to be stored); and
- Location within site. (plan of workplace)

92. Site Plans

The Manifest site plan / map must be maintained showing the physical location of the goods described on the manifest and include appropriate descriptions and legends / symbols that clearly identify what chemical is located where.

- Drains on the site
- Fire services and isolation points for fuel and power
- Main entrance and entry and exit points from the workplace

The manifest and map should be kept near the main entrance and be available to emergency services upon request. An example of a combined hazardous substance register / manifest is provided in **Appendix A**.

10. Emergency Preparedness and Emergency Planning

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 43, 357, 359, 360, 361, 362, 557, 664
<i>Mining Regulations 2011 (SA)</i>	Regulation 80 (5) k)
<i>Code of Practice - Managing Risks of Hazardous Chemicals in the Workplace</i>	www.safework.sa.gov.au
Safe Work Australia Emergency Plans fact sheet	www.safeworkaustralia.gov.au
<i>DRAFT Code of Practice - Mining Regulations</i>	www.safeworkaustralia.gov.au
MAQOHSC Emergency Plans Guide	www.maqohsc.sa.gov.au

Site Managers must ensure that Emergency Response Plans (ERP) are developed, implemented, communicated and tested within their site. Emergency Response Plans must also be developed in consultation with workers and external emergency services organisations.

Refer to the MAQOHSC Emergency Plans Guide for information on how to develop Emergency Response Plans.

Additionally, Site Managers must also ensure that emergency response equipment is provided and maintained to deal with all potential emergencies.

A Safety Data Sheet provides suggested emergency equipment such as fire extinguisher types, recommended spill clean-up kits, personal protective equipment and first aid supplies.

Refer to the *Work Health and Safety Regulations 2012 (SA)* Chapter 10, Division 5, Regulation 664 Emergency Management and the *Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace*.

11. Hazardous Chemical Controls and Personal Protective Equipment

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 36 (general), 351-2 (chemical), 617-8 (mines)
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 44, 45, 46, 47

Site Managers must ensure that appropriate controls are in place to manage risks for all hazardous chemicals on their site.

This may include:

- **Engineering Controls** - For storage – Segregation, bunding, and monitoring equipment – alarms. For worker exposure - Engineering e.g. pumping via enclosed systems rather than allowing exposure; Ventilation e.g. Local exhaust extraction, dilution. For dusts – enclosed cabins, water sprays, road stabilizing, wheel washes etc.
- **Administrative controls** - Signage, labels and placarding, procedure development, training and exposure time limiting
- **Personal Protective Equipment** - Overalls, chemical aprons, respirators, gloves (both for use of the chemical and emergencies)
- **Emergency Equipment** - Firefighting media, spill kits

Most chemicals will require workers handling them to use some form of personal protective equipment. Recommended personal protective equipment for individual chemicals is identified within the relevant Safety Data Sheets.

When selecting personal protective equipment consideration must be given to the nature of the chemical, the potential exposure level and how it will be used in the workplace. Personal protective equipment recommendations in the Safety Data Sheets are general and may not necessarily reflect the site exposure to the chemicals based upon their actual use.

Any personal protective equipment required for the handling and use of chemicals as part of any person's job must be provided by the PCBU. PCBUs have the responsibility to ensure all personal protective equipment is available, fit for purpose and fits the user properly.

All personal protective equipment provided must comply with Australian Standards; some are detailed in **Appendix G**.

12. Storage

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 355, 356, 358, 363-367
<i>Dangerous Substances Regulations 2002 (SA)</i>	Regulations 41, 46, 48, 59-62

Site Managers must ensure that appropriate storage areas and facilities are provided for all hazardous chemicals on their site.

Storage areas must:

- Protect chemicals from damage or degradation;
- Ensure chemicals do not become unstable due to exposure to elements or other chemicals;
- Are protected from theft and unauthorised access;
- Protect workers and environment from unintended exposure, spills or other impacts;
- Limit and / or contain impacts of an incident or emergency event (i.e. contain spill, limit fire); and
- Do not create a greater risk through incorrect storage, proximity to other chemicals or ignition sources.

12.1. General Requirements

When establishing storage areas Site Managers must ensure:

- All chemicals are stored correctly in accordance with Safety Data Sheet instructions and consider all other risks identified in the risk assessment, such as proximity to other chemicals, heat, light, or air.
- All chemicals should be stored in accordance with the relevant Australian / New Zealand Standards (or equivalent) detailed in **Appendix G**.
- Buildings and structures used for storing hazardous chemicals are constructed to comply with Australian Building Codes and Regulations that considers the type, nature and quantity of substance being stored.
- Hazardous Chemicals are stored separately, away from all other plant, equipment and other general supplies.
- Incompatible chemicals are segregated and stored separately from each other (**Appendix F**).

- Some Basic rules:
 - Segregate organic from inorganic chemicals
 - Oxidisers and organic peroxides should be segregated from all other classes, especially flammable and combustible materials
 - Acids are incompatible with alkalis, hypochlorites, cyanides and Dangerous Goods of Class 4.3
 - Class 4.3 shall be kept away from water sources (rain or other liquid chemicals)
 - Flammable materials are to be kept away from open flames and other sources of ignition (**refer section 12.2**)
- Storage areas are maintained and kept clean and free of other fuel loads (rubbish, leaves etc.).
- Storage areas have appropriate signage installed (**refer sections 13.0 and 15.0**).
- Storage areas are scheduled for regular inspection (**refer section 19.0**).
- All persons who are required to operate, clean, maintain, repair, inspect or test storage areas or their components, shall have all relevant information about the storage facility and any associated hazards and risks made readily available to them.

122. Ignition sources

Where there is a risk of fire or explosion Site Managers must ensure that no ignition source is present, or can be introduced, into the hazardous area. Ignition sources may include:

- Welding, grinding and other “hot work” type activities;
- Plant equipment and machinery (e.g. hot engines, exhaust, sparks); and
- Non-intrinsically safe devices (e.g. radios, mobile phones, electric hand tools).

Note: *Where it is required that a potential ignition source is introduced into a hazardous area, such as for the purpose of carrying out maintenance or repairs.*

Managers should ensure there is an appropriate Permit to Work system in place to assess the risks and provide necessary authorisations and supervision.

123. Bunds

All stored chemicals shall be stored in such a way that all spills and leaks are suitably contained. Consideration should be given to appropriate bunding and spill kits.

The minimum volume of a bund varies depending on what is stored and how it is stored. The bund requirement does not only relate to bulk goods, it also needs to be considered for packaged goods.

Bulk liquids should be stored in bunds or on spill containment pallets that can contain at least 130% of the capacity of the largest single container of substance being stored.

Bunds should be regularly inspected for general wear and potential leakage and where they show signs of wear that could allow spillage, they should be replaced immediately.

124. Containers

Containers used for hazardous chemical storage must be:

- Compliant with recommendations made in individual substance Safety Data Sheets;
- Compliant with recommendations outlined in the Australian / New Zealand standards listed in **Appendix G**;
- Protected from damage;
- Maintained and inspected on a regular basis; and
- Stored on a stable base / platform with any required retention systems secured to prevent movement.

125. Disposal

Site Managers must ensure that any excess, disused and waste hazardous chemicals are disposed of correctly. Guidance on recommended disposal methods can be found in the chemical Safety Data Sheets.

When determining appropriate disposal methods, consideration also needs to be given to all:

- Local Council Regulations and by-laws;
- *Environmental Protection Act 1993 (SA)*; and
- *Environmental Protection Regulations 2009 (SA)*.

13. Placards

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 349, 350
<i>Work Health and Safety Regulations 2012 (SA)</i>	Schedule 13

13.1. What are placards?

Placards are visual warning signs that include specific information and symbols indicating the type of substance and related hazards present within a building or work area.

They are a means of alerting emergency services and other persons to the presence of hazardous chemicals and provide a quick, visual source of information.

132. When must placards be displayed?

Placards must be displayed where the quantity of a chemicals stored (or group of similar chemicals) meet or exceed the 'placarding quantity' detailed in Schedule 11 of the *Work Health and Safety Regulations 2012* (SA) and **Appendix C**.

133. Types of placards and requirements

There are 2 different types of placards required to be displayed depending on the nature, classification and quantity of chemicals stored within a site or storage area.

These include:

- Outer warning placard for the entrance to the workplace ("Hazchem" sign when quantities exceed schedule 11 thresholds); and
- Information placards for hazardous chemicals in bulk or in packages.

In general, placards must be:

- Designed to meet the requirements detailed in Schedule 13 of the *Work Health and Safety Regulations 2012* (SA);
- Must display the specific UN numbers, Hazchem codes and class labels as set out in the Australian Code for The Transport of Dangerous Goods by Road and Rail (ADG Code);
- Clearly visible and legible by any person approaching the placard;
- Separate from all other signage;
- Maintained and kept clean;
- Replaced if broken, damaged or illegible;
- Updated if risk or substance changes; and
- Removed when substance is no longer stored / present.

Note: The Label used for placarding purposes is usually the Class Diamond from the ADG Code, **not** the pictograms from the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

14. Labels

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 335, 338, 341 - 343
<i>Work Health and Safety Regulations 2012 (SA)</i>	Schedule 9: Part 3

14.1. General Requirements

Site Managers must ensure that all hazardous chemicals are correctly labelled. This includes all hazardous chemicals that are supplied to site and decanted from their original packaging or container. Labels may also be required on certain pipework used to convey hazardous chemicals.

Labels must:

- Meet the design and layout requirements of *Work Health and Safety Regulations 2012 (SA)* Schedule 9 and the *Code of Practice - Labelling of Workplace Hazardous Chemicals*;
- Be clearly visible and legible;
- Be reviewed on a regular basis; and
- Updated as soon as possible where there is any change to information from the manufacturer or supplier.

14.2. Label Elements

Labels are required to display specific information that includes:

- **Product identifier:** chemical name;
- **Ingredients:** quantities of each chemical ingredient;
- **Expiry Date:** if any;
- **Pictograms:** the GHS provides 9 key symbols / pictures that represent chemicals various hazardous properties. Only these pictograms are to be used for labelling purposes;
- **Signal Words:** signal words describe the potential severity of the hazard. The signal words used are “DANGER” and “WARNING”;
- **Hazard Statements:** describe the nature and potential severity of the chemical hazard. Hazard statements include phrases such as; “Highly flammable”, “May cause cancer”, “Gas under pressure”;
- **Precautionary Statements:** describe some recommended measures to minimise risks associated with the hazardous chemical. The GHS uses four types of precautionary statements that cover; Prevention, Response, Storage and Disposal recommendations; and
- **Manufacturer or Importer details:** Australian names, address, contact numbers.

Refer to **Appendix E** for pictograms and an example of a compliant label.

14.3. Decanted / unpackaged chemicals

Decanted chemicals are those that have been transferred from their original packaging or container to another package or container.

All decanted chemicals need to be labeled, however they do not need to contain all of the detail from the original packaging.

Labels on decanted chemicals should contain as much information as possible, but as a minimum they must include:

- Product identifier; and Hazard pictogram along with a hazard statement consistent with the original labelling.

14.4. Small Containers

Where a chemical is supplied in a package that is too small to fit a label with all required details, it is acceptable to have a reduced amount of information on an appropriate sized label.

As a minimum small container labels must include:

- Product identifier;
- Australian name and contact details of manufacturer or supplier;
- Hazard pictogram and hazard statement; and
- Any other relevant information that is practical to include (if there is room on the label, then include as much information as possible).

14.5. Pipework

Pipework used to convey hazardous chemicals must be clearly labelled and identified. Pipework may be labelled by:

- Placing labels directly on the pipe;
- Placing signage directly adjacent to the pipe; and
- Using coloured pipe coating compliant with *AS 1345: Identification of the contents of pipes, conduits and ducts* for guidance.

15. Safety Signage

Legislative and Compliance References:

Work Health and Safety Regulations 2012 (SA)

Regulation 352

In addition to product labels and placards, some level of general safety signage may still be required in areas where chemicals are stored or used.

General signage may include:

- ☐ General hazard warning signs;
- ☐ Personal protective equipment requirements, such as eye protection, face mask, long sleeves, protective footwear etc.;
- ☐ Restricted entry;
- ☐ No smoking;
- ☐ Restricted electronic / mobile device usage; and
- ☐ Site Managers must ensure all signage is installed and maintained.
- ☐ All safety signs must be designed to comply with *AS 1319: Safety Signs for the Occupational Environment*.

16. Induction and Training

Legislative and Compliance References:

Work Health and Safety Regulations 2012 (SA)

Regulations 39, 379

Site Managers must ensure that prior to workers using any chemical or substance they are inducted and trained in all hazards and risks associated with its use, and must, as a minimum, include:

- Hazardous chemicals information systems, Safety Data Sheet location etc.;
- Information about hazardous chemicals they are required to work with (or may be exposed to e.g. dusts);
- Hazard control measures, including safe work procedures;
- Labelling containers and label information;
- Proper storage, use and fit of personal protective equipment;
- First aid and emergency procedures; and
- All records of training and induction must be kept in the workers training file.

17. Exposure Standards

Legislative and Compliance References:

Work Health and Safety Regulations 2012 (SA)

Regulation 49, 50

Site Managers must ensure that workers are not exposed to hazardous chemicals in an airborne concentration which exceed the “Exposure Standards”.

17.1. What are Exposure Standards?

The Workplace Exposure Standards (WES) for Airborne Contaminants (Exposure Standards) provide guidance on how much of a particular substance a worker can be exposed to before that substance is likely to have a health impact.

Workplace Exposure Standards includes:

- **8 hour time weighted average:** how much a person can be exposed to in an average working day i.e. an 8 hour period;
- **Peak limitation:** maximum a person should be exposed to at one time (less than 15 minute period); and
- **Short term exposure limit:** how much a person may be exposed in a short time period. (15 minutes).

The Exposure Standards can be accessed on the SafeWork Australia website:

<http://www.safeworkaustralia.gov.au/sites/swa/whs-information/hazardous-chemicals/pages/exposurestandards>

Note: *Section 8 of some Safety Data Sheets may contain information regarding Exposure Standards.*

17.2. How do I assess exposure?

To assess how a person is exposed to a particular substance we must first conduct a risk assessment and consult with workers as discussed in **Section 6.0** of this document.

To determine exposure we first need to consider:

- The work and activities that the worker directly undertakes;
- Their work environment and other operational activities that occur in their vicinity;
- Which chemicals they will interact with; and
- How long they spend undertaking those activities and how long they are exposed to individual chemicals.

Once it has been established the type of work to be undertaken, and the duration of those activities, it may be required to undertake air monitoring and measurement to ensure a person's exposure is not above the exposure standards.

Note: *It may be required to engage the services of a professional occupational hygienist to undertake air sampling and analysis. See Australian Institute of Occupational Hygienists (AIOH) consultant search function.*

17.3. When is air monitoring required?

Air monitoring / sampling must occur where:

- There is uncertainty whether exposure to a substance exceeds the Exposure Standards; and
- Where it is required to determine if there is a health risk (i.e. as part of the risk assessment).

Note: *It is considered good practice to conduct periodic air monitoring to ensure that over time exposure levels do not change. Air monitoring activities should be included as part of regular inspection and monitoring schedules and be based on risk.*

17.4. What if exposure levels are above the standard?

Under no circumstances must workers be exposed to levels above the Exposure Standards. If standards are, or are likely to be exceeded then consideration needs to be given to controls, such as

- Adjusting the work, including work schedule to limit the exposure;
- Reducing the duration and frequency of tasks / sharing tasks with other personnel;
- Substitute the substance for a less hazardous type;
- Place the process within an enclosure (separate the worker and substance);
- Provide mechanical ventilation or extraction;
- Consider mechanical devices for handling chemicals;
- Purchasing smaller quantities to avoid decanting; and
- Consider additional personal protective equipment (least desirable control).

18. Health Monitoring

Legislative and Compliance References:	
<i>Work Health and Safety Regulations 2012 (SA)</i>	Regulations 368 - 378, 406
<i>Work Health and Safety Regulations 2012 (SA)</i>	Schedule 14

18.1. What is health monitoring?

Health monitoring means monitoring of a person to identify changes in the person's health, status because of exposure to certain chemicals.

Health monitoring may include:

- General consultation;
- Physical examination skin checks or spirometry (lung function) tests;
- Clinical tests urine or blood samples; and
- X-rays.

18.2. When is health monitoring required?

Health monitoring is required where:

- A person is, or is likely to be regularly exposed to a substance outlined in Schedule 14, table 14.1 of the *Work Health and Safety Regulations 2012 (SA)*; and
- On medical advice for example of a person suffers an unexpected high level exposure.

18.3. General Obligations

Where health monitoring is required Site Managers must:

- Inform workers and prospective workers about health monitoring requirements relating to their job;
- Ensure health monitoring is carried out by, or under the supervision of a registered medical practitioner with experience in health monitoring;
- Consult workers in relation to the selection of the registered medical practitioner;
- Pay all expenses relating to health monitoring;
- Provide any required information about a worker to the registered medical practitioner;
- Obtain and provide a copy of the report to the worker, and the Regulator if the report contains adverse test results or recommendations that remedial measures should be taken;

- Keep reports as confidential records for at least 30 years after the record is made (40 years for reports relating to asbestos exposure); and
- Not disclose the report to anyone without the worker's written consent, unless required under the *Work Health and Safety Regulations 2012* (SA).

19. Workplace Monitoring, Auditing and Review

Legislative and Compliance References:

<i>Work Health and Safety Regulations 2012</i> (SA)	Regulations 38, 352
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Site Managers must ensure they have an appropriate Monitoring, Auditing and Review program to ensure hazard and risk controls are implemented and remain effective.

19.1. Workplace Monitoring Programs

Workplace monitoring may include formal (documented) and informal (observation / interaction) type activities.

Informal (observation and interaction) type activities occur as part of day to day operations and may include:

- Hazard Reporting procedures (workers reporting identified hazards);
- General safety observation programs (workers observing other workers / processes);
- Management interactions and discussions with workers (active management participation in safety); and
- Air quality and health monitoring programs (**see Section 17 and 18.0**).

19.2. Audit and Inspection Programs

Audit and inspection programs are formal, scheduled and documented activities designed to test the integrity of procedures and controls as well as the physical conditions within a site or work area.

Audits and inspection requirements should be based on risk and test all elements of the sites Principal Mining Hazard Management Plans including any additional emergency response or environmental plans.

Audit and inspection programs should include:

- General weekly and / or monthly inspections of the worksite that checks:
 - Storage conditions (e.g. building condition, no rubbish build ups, no ignition sources);
 - Condition and stability of chemicals (e.g. container condition, stacked properly, no leaks);
 - General safety signage including placards and labels (e.g. good condition, legible);

- Inspection and testing of all emergency equipment, fire systems and first aid / medical facilities;
- Personal protective equipment inspections (e.g. good condition, available, still appropriate for use / user etc.);
- General plant and equipment inspections (e.g. no leaks, no excessive fumes, no substance build up etc.);
- Audits of management system programs including all documented procedures, guides, training material, risk assessments and Safety Data Sheets; and
- Audits and testing of emergency procedures and response drills.

19.3. Management Review

Site Managers must ensure that they regularly review information and results from monitoring, auditing and inspection programs to determine if current hazardous substance procedures and controls are:

- Being applied and implemented correctly to adequately mitigate risks; and
- Still appropriate and relevant to their operations.

Where there are deficiencies found in current process (i.e. controls do not properly reduce risks) or, where there are non-conformances discovered (i.e. operations are not being conducted as per agreed procedure or controls) then corrective action must be taken.

A corrective action would be where an existing control is altered, or a new control is introduced to better mitigate the risks.

Any actions taken to correct deficiencies or non-conformances must go through the same risk assessment process discussed in **Section 67.0**.

This process of monitor, inspect, audit, review creates a continuous business improvement cycle.

20. Common Substance Guide

Hazardous chemicals used and hazardous waste generated on a small mine or quarry site can include the following:

20.1. Explosives / Detonators

Description of Group

Explosives commonly used in the quarrying industry are predominantly ammonium nitrate based.

The main type is a simple ammonium nitrate / fuel oil mixture, with proprietary brands possibly containing inert fillers, celluloses, starches, “air bubbles”, stabilisers or metal powders in small or very small proportions.

Accessories such as detonators, primers, boosters, lead lines, delays and detonating cords may include one or more of the chemicals below:

- Gunpowder;
- Pentaerythritoltetranitrate (PETN);
- Trinitrotoluene (2,4,6 TNT);
- Sodium nitrate;
- Lead azide;
- Lead styphnate;
- Molybdenum disulphide;
- Aluminium powder; and / or
- Cyclotetramethylenetetranitrate (HMX).

Primary Hazards and Risks

Hazards associated with these products are mainly due to their dangerous nature as explosives and the potential for catastrophic accidents if strict safety standards are not observed in terms of handling, mixing, storage, transport and use.

The risks of premature detonation from impact, friction, extraneous electricity or excessive heating are very real and the precautions and requirements in the Explosives Regulations, Codes of Practice and Standards must be observed at all times.

Health effects are somewhat less critical and no adverse health effects should be expected under conditions of normal use, provided good standards of personal hygiene are observed.

Precautions for Use / Handling:

- Do not generate and inhale dust;
- Avoid eye contact;
- Avoid repeated or prolonged skin contact;
- Wash hands immediately after use and before smoking, eating, drinking or using the toilet;
- Wash contaminated clothing and personal protective equipment before storing or re-using;
- Do not test fire detonators in poorly ventilated areas due to the risk of inhalation of lead fume; and
- Do not enter areas of blasting until gases and dust have dissipated - toxic gases - particularly oxides of nitrogen - are often a by-product of the explosion.

Protective clothing and equipment:

- When handling packaged explosives in quarry, overalls, antistatic safety shoes and hard hats are minimum recommended protective clothing requirements; and
- When using bulk explosives in quarry use overalls, antistatic safety shoes, hard hats, impervious gloves and safety goggles or glasses.

Storage:

- Storage of explosives must comply with *AS 2187.1: Explosives - Storage, Transport and Use* and the *Explosives Regulations 2011* (SA).

202. Fuels

Description of group

Fuels are petroleum based hydrocarbons with the main fuel being distillate (diesel), with petrol and LP gas being used to a lesser degree. These may contain additives or chemicals including:

- Toluene;
- Xylene;
- Benzene and benzene-like compounds;
- *n*-Hexane; and
- Tetraethyl lead.

Primary Hazards and Risks

Fuels are another group of chemicals where there is a high physical safety risk, being class 2.1 flammable gases or class 3 flammable liquids.

Note: *Diesel fuel is classed as a combustible liquid, not a flammable liquid.*

The physical safety aspects are covered by the appropriate Codes and Standards as listed in the references.

Fuels in general are hazardous chemicals due to containing cyclic or polycyclic aromatic compounds which by themselves have been associated with skin disorders including cancer. The most likely effect, if any, could be dermatitis due to a drying and defatting action.

Studies such as one for long term exposure to petrol by distribution workers in the United States did not identify any associated adverse health effects. However, skin or eye contact and inhalation of vapours or mists should be avoided.

For normal use (as a fuel), infrequent low level exposure is unlikely to create a health risk and toxic effects are unlikely provided good personal hygiene practices and adequate ventilation are followed.

Note: *Chronic misuse of petrol i.e. sniffing or even by use as a solvent or cleaning fluid can lead to a number of serious effects on the heart, central nervous and blood systems, leading to death.*

Precautions for Use / Handling:

- Use only in well ventilated areas - any ventilation equipment must be explosion proof;
- Keep away from all ignition sources;
- Do not use as solvent or cleaning fluid;
- Avoid repeated or prolonged skin contact;
- Avoid eye contact;
- Do not inhale vapours or mists (vapours encountered during normal fuelling operations in well ventilated areas do not pose a significant health risk);
- Wash hands immediately after use and before smoking, eating, drinking or using the toilet; and
- Wash contaminated clothing and personal protective equipment before storing or using.

Protective clothing and equipment:

- Protective clothing / equipment is not necessary for normal fuelling operations from approved dispensing equipment in a well-ventilated area;
- If splash of fuel is likely, then use chemical type goggles or a face shield;
- If skin contact cannot be avoided, impervious gloves should be worn; and
- If respiratory protection is required due to high concentrations of vapor or misting then Australian Standard 1716 approved equipment should be used.

Storage:

- Storage of fuels must comply with *AS 1940: Storage and handling of flammable and combustible liquids*.

203. Lubricating Oils and Greases

Description of Group

Most lubricating oils and greases are petroleum based, a few which are vegetable based and a number of silicone or graphite based products.

Many will contain various chemical additives, such as lithium or molybdenum compounds and antifoam agents. Some greases may contain small quantities of organic lead, however it is extremely unlikely that any significant quantity of lead could be absorbed under normal use conditions.

Primary Hazards and Risks

Oils and greases used in the mining and quarry industry do not pose a significant hazard with normal use, provided good standards of personal hygiene are followed.

The most probable effect, if any, through a combination of prolonged exposure and poor personal hygiene could be dermatitis brought on by the defatting and drying effect on the skin or oil acne which appears as large open blackheads. Inhalation of mists or vapours caused by elevated temperatures should be avoided.

Any carcinogenic risk would most probably be as a result of polycyclic aromatic compounds, which, if present at all, will be in relatively low levels, and again, will not be a problem under normal use conditions.

One area of caution should be with used oils and greases which, due to conditions during use, may have developed hazardous compounds.

For this reason it is a sensible precaution to avoid skin or other contact with used (and sometimes hot) lubricants. Nitrile or PVC gloves should be used and in the event of skin contact, wash off as soon as possible with soap and water.

Other hazardous situations may arise from burning these products when dangerous chemicals, such as carbon monoxide, oxides of nitrogen, oxides of sulphur, aldehydes and ketones could result.

Where high pressure equipment is used care must be taken to avoid injecting oil or grease under the skin. If this occurs medical help must be sought immediately.

Aerosols such as penetrating oils usually have hydrocarbon propellant. Hazardous chemicals may be present, but use is infrequent and provided safety precautions below are followed there will be little or no risk.

Oils and greases must not come into contact with strong oxidizing agents, since this can result in spontaneous combustion or even explosion.

Precautions for Use / Handling:

- Store and use in well ventilated areas away from sources of ignition;
- Avoid prolonged or repeated skin contact, especially used oils;
- Avoid eye contact;
- Avoid breathing in mists or vapours caused by heating or from aerosols;
- When handling oils or greases, do not wear rings or watches that may trap the chemical;
- Wash hands immediately after use and before eating, smoking, drinking or using the toilet; and
- Wash contaminated clothing (for maintenance personnel, at least weekly) after use and clean personal protective equipment before storing or re-using.

Protective Clothing and Equipment:

- Use of nitrile or PVC gloves where there is risk of skin contact;
- Eye protection is strongly recommended for all workshop activities;
- A respirator is not required under normal circumstances, however if there is a risk of misting, then use the appropriate respirator as per Australian Standards 1715 and 1716; and
- Use of a reputable skin protectant cream is recommended.

204. Compressed Gases

Description of Group

Compressed gases are a diverse group of chemicals used predominantly for welding and cutting operations or in refrigeration systems.

Gases encountered range from inert 'non-toxic' gases, such as nitrogen and argon, highly flammable gases, such as acetylene and Handigas (propane / propylene) to highly reactive gases such as oxygen. All are kept under pressure in metal cylinders which are labelled and coloured in a standard and distinctive way to allow easy and instant recognition.

In most welding and cutting operations a combination of gases are used (Argoshield is pre-mixed) and precautions taken must consider both gases being used.

Refrigerants are used somewhat less frequently and on their own, mainly in mobile equipment air conditioning systems.

Primary Hazards and Risks

Physical safety risks associated with the storage, handling and use of these chemicals, such as dangers associated with any compressed gas, flammability, reactivity and compatibility with other chemicals. Due to the weight and shape of containers, there are also significant manual handling risks.

Serious incidents have occurred through the connection and use of the wrong cylinder. All cylinders have distinct colour codes, in addition to labelling.

The common cylinder colours are as follows:

Gas Type	Cylinder Colour
Oxygen	Black
Acetylene	Claret
Nitrogen	Pewter
Argoshield 51	Blue body, green-grey shoulder, black neck
Handigas	Silver or grey
R12 Refrigerant	Top aqua, bottom galvanised or white
R22 Refrigerant	Top moss green, bottom galvanised or white

The following table highlights known health risks from commonly used gases:

Gas Type	Health Risk
Oxygen	Breathing concentrations between 25% and 75% may cause inflammation of organs.
Acetylene	Asphyxiates can have anaesthetic and narcotic effects. Maximum allowable concentration 0.5%.
Nitrogen	Asphyxiates only.
Argoshield 51	81% Argon, 16% Carbon Dioxide and 3% Oxygen. Mainly an asphyxiant, however long term exposure to levels of carbon dioxide between 0.5 and 1% is likely to lead to calcium decomposition in body tissues and kidneys.
Handigas	95% Propane and 5% Propylene. Asphyxiates, and has anaesthetic effect in higher concentrations. (Propylene has been used as an anaesthetic.)
R12 Refrigerant	Asphyxiates with mild narcotic properties. 5% concentration can cause dizziness and 15% loss of consciousness. Decomposes on burning to toxic products.
R22 Refrigerant	As for R12 above, however this chemical is thought to be mutagenic and estrogenic and women of child bearing age should not be exposed.

Note: Some of the above gases may cause cryogenic burns from the intense cold generated by sudden release of pressure.

Precautions for Use / Handling:

- Always use suitable approved pressure reducing valves with compressed gases;
- Fittings for Acetylene should be steel, stainless steel or aluminum. **Never** use Acetylene with copper, silver, mercury or brasses; brazing materials containing more than 66% copper due to the danger of formation of explosive acetylides;
- For Oxygen, use only oxygen compatible materials and use only degreased, approved pressure rated equipment;
- **Never** use greases or other lubricants with oxygen;
- Acetylene is stored in acetone (inside cylinder), make sure hoses are compatible;
- Make sure cylinders not in use have plugs or dust caps fitted at all times - this is particularly important with oxygen which reacts with many materials;
- Beware of possibility of cryogenic burns (cold burns) resulting from sudden or prolonged pressure release of some compressed gases;
- Beware of oxygen build up in clothing since this has resulted in severe burns due to clothes igniting;
- Never smoke when using gases - even non-flammable gases may decompose to toxic chemicals and be inhaled on passing through the cigarette or pipe;
- Only use gases in well ventilated areas. It is recommended that boiler making shops have extraction systems installed;
- Many gases are heavier than air - beware of gas build up in pits, trenches, bins or enclosed spaces. If in doubt, it is essential to have atmosphere tested by a qualified person;
- Always double check colour coding and labelling on cylinders before use;
- Always open cylinder valves slowly and only when reducing valve fitted;
- Always close cylinder valves when not in use;
- Avoid using rubber seals or gaskets with refrigerant gases since decomposition of natural rubber may occur and result in leaks; and
- Acetylene can spontaneously decompose or cause an explosion at high pressures. Ensure pressure is always below 100kPa.

Protective Clothing and Equipment:

- Use safety glasses, goggles or face shield as appropriate;
- Wear overalls or long sleeve shirt and pants;
- Wear leather or plastic gloves; and
- When handling cylinders wear safety shoes.

Storage:

- All cylinders should be stored upright, kept below 45°C and stored away from combustibles in a well ventilated area preferably outside normal work stations;
- Secure cylinders such that they cannot fall or be knocked over;
- Storage areas should be secure and locked; and
- Oxygen, Acetylene and Handigas should not be stored near each other unless well separated with a non-combustible partition.

205. Paints / Thinners / Solvents / Cleaning fluids

Description of Group

This group of chemicals is derived mainly from hydrocarbons, often aromatic and volatile, or from plastic polymers and co-polymers. Some additives, such as zinc phosphate, lead chromate, isocyanates and a multitude of other fillers and pigments may be used.

Use in the quarrying industry is relatively infrequent and is mainly associated with construction and maintenance of both fixed plant and mobile equipment, particularly trucks for road use.

Most of the solvents and thinners used already exist in the paints themselves. Cleaning fluids such as degreasers can be included with this group since they too are used in maintenance operations and present the same inherent hazards.

Primary Hazards and Risks

Many of the paints etc. in this group, particularly those which are hydrocarbon based, are highly flammable and have low flash points presenting a real risk of fire (or explosion) if precautions are not taken. The vapours are heavy and can build up in poorly ventilated areas, pits, trenches or enclosed spaces.

Common base solvents and thinners are often toluene, xylene, mineral turpentine (paraffins and naphthenes), and white spirit with some benzene, *n*-butyl alcohol, ethanol and methanol.

Degreasers may also contain ethylene glycol based ethers, oleic acid and / or alkalis in a hydrocarbon base.

Some of these compounds are toxic, can cause dermatitis, are known carcinogens, can cause respiratory sensitization, and can lead to permanent respiratory disability with excessive, prolonged or repeated exposure.

A few first schedule paints still use lead chromate and are used in permitted industrial applications.

A common misconception is that water based paints are less hazardous. This is not necessarily the case and the same precautions should be applied when using (particularly spraying) these products.

The dust from sanding some paints and the toxic by-products of burning off paints can also be a hazard.

Precautions for Use / Handling:

- Avoid prolonged or repeated skin contact;
- Avoid contact with eyes;
- Avoid breathing in fumes vapours or overspray mist including aerosol mists;
- Ensure area of use is well ventilated;
- Keep away from all sources of ignition;
- Do not store or use in close proximity to strong oxidising agents (ammonium nitrate, peroxides, hypochlorite);
- Do not wear rings or watches that may trap the chemical;
- Do not use thinners and organic solvents to clean the skin after use;
- Wash hands immediately after use and before eating, drinking or using the toilet;
- Wash contaminated clothing before re-use (at least weekly), and clean personal protective equipment before storing or re-using; and
- Fumes and vapours are heavier than air. Beware of dangerous build up in pits, trenches, tanks and enclosed spaces. If in doubt have the atmosphere tested by a qualified person. Do not purge space with oxygen.

Protective Clothing and Equipment:

- Overalls or long sleeve shirt and pants;
- Safety glasses, goggles or suitable face shield;
- Appropriate hat or hair cover (Hard hat in most mine and quarry areas);
- Impervious gloves;
- Organic vapour respirator or dual filter for spray paint. If using isocyanates, supplied air mask must be used; and
- Skin protectant cream can assist and is recommended.

Storage:

- Do not store in close proximity to strong oxidizing agents; and
- Store in well ventilated areas and in cabinets that comply with *AS 1940: Storage of flammable and combustible liquids*.

20.6. Adhesives

Description of Group

The most commonly used adhesives in mines and quarries will be chemicals for sealing or creating gaskets such as silicone sealants or “form-a-gasket” type materials.

Other materials which can be included in this group are such materials as Loctite products and epoxy crusher backing.

Another class of adhesive which may be used very infrequently, and mostly by contractors, is the adhesives for fixing rubber backings and wear sheets or splice joining conveyor belts.

Primary Hazards and Risks

Materials such as Loctite products and gasket forming or sealing products may contain chemicals that are classified as hazardous but use is in such small quantities and so infrequently that provided the materials are used in well ventilated areas and with simple precautions to avoid skin and eye contact, the risk could be considered negligible. It is necessary to be aware that some formulations involving acrylates can instantly bond skin.

Epoxy resins that are commonly used as crusher liner backing are hazardous and whilst used infrequently, the method of use, relatively large volume used and mixing of two components does create risk of exposure. Epoxy resins have heavy vapours which can collect; constituents can be highly corrosive to the eyes and even cause blindness. Class 2 carcinogens such as epichlorohydrin may also be present. Epoxy resins are also known to be skin and respiratory system sensitizers.

Adhesives used for bonding rubber to steel or splicing conveyor belts are usually comprised of organic volatiles and there is a real danger of hazardous vapour build in poorly ventilated areas or enclosed spaces which can be both toxic and highly flammable.

Precautions for Use / Handling:

Where using small amounts of adhesives or sealants in normal maintenance procedures then providing natural ventilation, using impervious gloves and safety glasses will suffice.

For “bulk use” adhesives such as the epoxy resins and rubber bonding adhesives and curing or surface preparation liquids the following precautions should be applied:

- Ensure work area is well ventilated;
- Avoid breathing vapours;
- Avoid prolonged or repeated skin contact;

- Avoid contact with eyes;
- Take care not to splash materials during mixing. Note that epoxy resins can generate significant heat during hardening process. Always mix to instruction, intense heat and foaming may occur if poorly mixed;
- Keep solvent based adhesives away from sources of ignition;
- Beware of vapor build up in pits or enclosed spaces;
- Wash hands immediately after use and before eating, drinking, smoking or using the toilet;
- Wash contaminated clothing before re-use and clean personal protective equipment before storing or re-using; and
- Avoid breathing dust if cutting or grinding hardened epoxy resins.

Protective Clothing and Equipment:

- Use goggles or safety glasses;
- Use impervious gloves;
- If vapours cannot be avoided use organic vapour respirator refer to *AS 1715: Selection, maintenance and use of respiratory protection devices*. All protection devices must comply with *AS 1716: Respiratory protection devices*;
- If cutting or grinding hardened epoxy resins use suitable dust mask; and
- Use suitable hand barrier cream.

Storage:

- Store in cool dry place below 30°C; and
- Keep nozzles on cartridges and lids tight on containers.

20.7. Fluxes

Description of Group

Fluxes may be encountered as discrete powdered solids, or as liquids for use in soldering and brazing operations, or as an integral part of another product such as the flux coating on normal welding rods and in multi-core solders.

Primary Hazards and Risks

Possibly the main hazard with the fluxes are the gases or fumes created during use. Generation of these fumes is often increased if excessive temperatures are used during welding / brazing / soldering operation.

Handling commonly used welding rods does not involve a hazard to health and apart from the obvious safety hazards relating to high temperatures and sparking during use or intense ultraviolet radiation from electric arcs; the only problems will arise from the generation of gases and fumes.

Liquid and powdered fluxes create additional hazards in that they may be harmful through skin or eye contact or in some cases where vapours are emitted at normal temperatures. Brazing fluxes can contain fluorides, inorganic and organic borates and may contain volatiles, such as acetone and methanol.

Soldering fluxes are usually mixtures of zinc and ammonium chlorides. These chemicals and their fumes and mists can be both poisonous and corrosive through skin absorption, eye absorption or inhalation.

Notwithstanding the hazardous nature of these chemicals it is unlikely that symptoms will present if used in small quantities, in well ventilated areas and if used and stored correctly.

Precautions for Use / Handling:

- Do not store fluxes near chlorine compounds or strong oxidizers;
- Use only in well ventilated areas;
- Use extraction systems and / or hoods in workshops;
- Avoid prolonged or repeated skin contact;
- Avoid contact with the eyes;
- Avoid continuous skin exposure to welding radiation;
- Protect eyes from radiation flashes;
- Avoid breathing in fumes, gases or mists;
- Beware of vapour build up from volatile fluxes and keep container away from ignition sources;
- Take precautions against physical burns and sparking;
- Use welding screens to protect other persons from direct ultraviolet radiation from arc welding;
- Wash hands before eating, drinking, smoking or using the toilet; and
- Wash and clean contaminated clothing and personal protective equipment before storage and re-use.

Note: *Contact lenses can concentrate chemicals in the eye and create additional hazards.*

Protective Clothing and Equipment:

Note that since these products are associated with boiler making activities that protective clothing needs to be of the appropriate type.

- Wear overalls or long sleeves and pants;
- Use safety glasses, goggles or face mask of the appropriate oxy - cutting or arc welding type;
- Use impervious gloves;
- Use suitable barrier cream; and
- If vapours or fume cannot be avoided use organic vapour / particulate respirator as per AS 1715: *Selection, maintenance and use of respiratory protection devices*.

208. Acids

Description of Group

The two strong inorganic acids usually encountered in the quarry, are sulphuric acid (used as a battery acid) and hydrochloric acid (which may be used as a cleaner, particularly for concrete transit mixers).

It should be noted that automotive batteries might be included in this grouping, because of the sulphuric acid association and in this case high capacity batteries are usually of the lead / acid type and contain lead and lead compounds.

Primary Hazards and Risks

Both sulphuric and hydrochloric acid are highly corrosive and can cause burns to the skin, mouth, throat, eyes and respiratory system. Contact with the eye may well result in blindness.

Both acids can react with certain metals to generate potentially explosive hydrogen gas. This gas is also generated within lead / acid batteries. Both acids can react with other compounds to produce poisonous gases and these acids should be neutralized with soda ash or limestone prior to disposal.

Hydrochloric acid is more volatile than sulphuric acid and the hydrogen chloride fumes given off are extremely soluble and a hazard to the respiratory / digestive systems and the eyes. Sulphuric acid (such as battery acid) will only give off significant sulphur trioxide gas at high temperatures, and in this respect is less of a hazard.

Within the quarry, sulphuric acid is normally used only when charging new batteries which are usually stored in the "dry state". Risks from normal use are low, provided personal protective measures are strictly adhered to. Most risks are associated with splashes and the generation of hydrogen gas in batteries which are physical safety risks rather than risks to health.

There is a higher risk factor with hydrochloric acid, due to its use as a cleaning agent which exposes the user to a higher chance of exposure to splashes, spray and fumes if strict control measures are not taken.

An additional risk with batteries would normally only occur in the event of a fire, or subjecting batteries to a very high temperature. This can result in generation of lead fume.

Precautions for Use / Handling:

- Ensure that work area is well ventilated;
- Avoid all skin contact;
- Avoid all eye contact;
- Avoid breathing fumes / vapours / mists;
- Always dispense (and store) acids in a separate area away from other chemicals and close to water supply;
- Keep soda ash / limestone close to hand for neutralization purposes;
- Wash acid resistant gloves and aprons etc. prior to removal;
- Keep all ignition sources (flame, sparks etc.) away from lead / acid batteries and take care not to short battery across terminals;
- If clothing becomes contaminated remove immediately and thoroughly wash any contact points on body with copious quantity of water. If skin is burned or otherwise irritated seek medical attention;
- Wash hands before eating, drinking, smoking or using the toilet;
- Wash contaminated clothing immediately and separately to other clothing;
- Thoroughly clean personal protective equipment prior to storing or re-use;
- Be aware that acid contaminated rags can self-ignite and are a significant fire risk;
- Do not leave acid containers open and make sure all containers are thoroughly cleaned prior to disposal;
- Ensure acid transfer containers are properly labelled and thoroughly cleaned after use;
- Do not leave old batteries full of acid;
- Do not burn old batteries; and
- Carry out careful clean-up immediately after use of acids to prevent people touching acid spots on bench etc.

Protective Clothing and Equipment:

- Use chemical safety goggles or full face shield;
- Use acid resistant gauntlet style gloves;
- Use acid resistant apron;
- Wear acid resistant footwear; and
- Where fumes cannot be avoided use respirator with acid gas B or B1 cartridge as per *AS 1715: Selection, maintenance and use of respiratory protection devices*.

209. Bitumen and Asphaltic Pre-coats

Description of Group

Bitumens are a combination of oxidized and non-oxidized petroleum asphalts and are used in blending plants (pug mills) in some quarries for the production of bitumen treated crushed rocks and rubbles for use as a road base.

Some quarries use asphaltic pre-coats to supply surface coated screenings for the spray sealing market. This range of pre-coats, are a blend of small proportions of asphalt, kerosene and possibly other light solvents in a diesel fuel (distillate) base.

Primary Hazards and Risks

In the solid or semi-solid state bitumens present little or no hazard. In the hot and fluid state ready for use there are a number of hazards not the least of which is the risk of severe burns from skin contact.

Bitumens contain Sulphur compounds which can form hydrogen sulphide, which is a highly toxic gas. Decomposition (particularly from overheating) can cause flammable vapours from a “cracking” effect and the formation of other potentially dangerous gases, such as carbon monoxide and sulphur dioxide.

It is necessary to be aware of the possibility of the build-up of these gases and vapours in tanks, trenches and other enclosed spaces with inadequate ventilation.

Bitumen may also contain polycyclic aromatic compounds which are possible carcinogens.

Notwithstanding the above, bitumen should not present significant risks to health under conditions of normal use in well ventilated areas provided a good standard of personal hygiene is adhered to.

The asphaltic pre-coats have similar properties to bitumen with the added risk of their volatility, flammability, and higher potential for contact through vapours, splashing or misting. Skin and respiratory sensitisation and possible dermatitis are an increased risk with these products.

Precautions for Use / Handling:

- Ensure ventilation is adequate. Do not enter tanks or other enclosed spaces unless the atmosphere has been tested by a qualified person;
- Use explosion proof equipment for handling hydrocarbon based pre-coats;
- Beware of vapour and gas build up in tanks, trenches etc.;
- Avoid prolonged or repeated skin contact;
- Avoid eye contact;
- Do not breathe vapours, fumes or mists;
- Keep these chemicals away from strong oxidizing agents;
- Do not wear rings and watches which may trap the chemicals;
- Keep pre-coats away from all ignition sources;
- Wash hands before eating, drinking, smoking or using the toilet; and
- Wash contaminated clothing before re-use and clean personal protective equipment before storing or re-using.

Protective Clothing and Equipment:

- Use impervious gloves;
- Use protective glasses or goggles;
- Wear full cover overalls;
- Wear hard hat in required areas or otherwise suitable head cover; and
- Use suitable barrier cream.

In applications where some misting or vapours cannot be avoided, use organic vapour / particulate respirator as per *AS 1715: Selection, use and maintenance of respiratory protective devices* for example: Sulphuric acid, hydrochloric acid.

21. Atmospheric contaminants

Atmosphere contaminates in the workplace can include the following:

21.1. Dust / particulates.

These can include crystalline silica, lead and nickel.

Reference:

Code of Practice - *Welding Processes* (Safe Work Australia)

Guidance: *Hazardous Chemicals Requiring Health Monitoring - Crystalline silica* (Safe Work Australia)

Guide to Managing Risks of Exposure to Diesel Exhaust in the Workplace (Safe Work Australia)

21.2. Gases produced by combustion.

These are produced by blasting and industrial combustion engines, and include CO, CO₂, NO_x, SO₂ and diesel particulate.

Reference:

Guide to Managing Risks of Exposure to Diesel Exhaust in the Workplace (Safe Work Australia)

22. Dangerous Substances likely locations at Mines:

Class	Description	Examples	Location in mine
1	Explosives	ANFO	M
2.1	Flammable gases	liquefied petroleum gas (LPG) liquefied natural gas (LNG) acetylene oxygen methane	P P P,WS,M P M
2.2	Non-flammable, non-toxic gases	nitrogen carbon dioxide compressed air helium	P P,W,M M,P,WS P
2.3	Toxic gases	anhydrous ammonia hydrogen cyanide sulphur dioxide carbon monoxide	P P, W P, W M, P, WS
3	Flammable liquids	unleaded petrol (ULP) diesel kerosene aviation fuel	M, WS M P
4.2	Substances liable to spontaneous combustion	Pyrite bearing coal Some base metal sulfides in the presence of pyrite	M, W M, W
5.1	Oxidising agents	Caro's acid ammonium nitrate hydrogen peroxide potassium permanganate calcium hypochlorite	P M (explosives) P P P
6.1	Toxic substances	cyanide arsenic compounds cadmium compounds	P P, W P, W
7	Radioactive material	naturally occurring radioactive minerals containing radioactive elements (U, Th Ce etc.) radon gas radium in dust and water measuring instruments using radioactive sources	M, P, WS, W
8	Corrosive substances	nitric acid sulfuric acid hydrochloric acid Caro's acid sodium hydroxide calcium hydroxide calcium oxide lead acid batteries	P P P P P P P W
9	Miscellaneous dangerous goods	asbestos some metal concentrates	W, P, M, WS P

M = mining; P = processing; W = waste; WS = workshop and maintenance

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA - www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia - www.safeworkaustralia.gov.au or call 1300 551 832

Appendix A: Hazardous Chemicals Register / Manifest

Hazardous Chemicals Register / Manifest							
Name of Chemical	Brand / Supplier Contact	Location	Quantity	Is it Hazardous (N/A or insert Code)	Is it Dangerous? (N/A or insert Class)	Safety Data Sheet (SDS) Issue Date	Risk Assessment Conducted? (insert reference)

Appendix B: Example: Risk Assessment Worksheet

CHEMICAL NAME:		WHAT IS IT USED FOR:	
FREQUENCY USED:		USED BY (OCCUPATION):	
NATURE OF HAZARD:	TICK	ROUTES OF EXPOSURE:	TICK
TOXIC (<i>POISONOUS</i>)		EYES	
HARMFUL (<i>BURNS</i>)		SKIN	
IRRITANT (<i>BREATHING, ITCHINESS</i>)		INHALATION	
SENSITISER (<i>ALLERGIES/ RASHES</i>)		INGESTION	
CARCINOGENIC		INJECTION	
CORROSIVE			
EXPLOSIVE			
FLAMMABLE			
COMBUSTIBLE			
OXIDISING			
IN THE EVENT OF A SPILL, CAN THE SUBSTANCE LEAK INTO A DRAIN OR WATERCOURSE?			
IF THE ANSWER IS "YES", THEN CONSIDER ALTERNATIVE STORAGE LOCATION AND STORE IN BUNDS WITH 130% CAPACITY OF CONTAINER. ENSURE SPILL CLEAN-UP KITS ARE AVAILABLE.			
STORAGE REQUIREMENTS:	TICK	PPE REQUIREMENTS: (LIST "OTHERS")	TICK
NATURAL VENTILATION (OUTDOORS)		EYE PROTECTION	
GENERAL VENTILATION (WINDOWS)		GLOVES	
ROOF VENTILATION (WHIRLY GIG)		RESPIRATOR (FACE MASK)	
EXTRACTION FAN (ELECTRIC)		LONG SLEEVES / PANTS)	
ISOLATION / SEGREGATION		OTHER:	
FIRE PROOF CABINET		OTHER:	
BUNDS		OTHER:	
PLACARD REQUIRED?			
OTHER:			
EMERGENCY RESPONSE:	TICK		TICK
EVACUATION REQUIRED?		EYE WASH STATION	
FIRE EXTINGUISHER		FIRST AID KIT (GENERAL)	
HOSE REEL		FIRST AID KIT (SPECIAL)	
SPILL KIT		IMMEDIATE MEDICAL ATTENTION	
ASSESSMENT CONDUCTED BY:			
SIGNATURE:			
DATE:			

Appendix C: Placard and Manifest

Placard and manifest requirements under the Work Health and Safety Regulations



The Work Health and Safety (WHS) Regulations require a person conducting a business or undertaking to placard the workplace, prepare a manifest and notify the regulator where specified quantities of certain hazardous chemicals exceed threshold amounts. The threshold amounts and types of hazardous chemicals are prescribed in Schedule 11 of the WHS Regulations.

The new WHS Regulations introduce a number of changes to placard and manifest requirements compared to pre-harmonised laws. A key change is the use of hazard classes and categories under the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), instead of classes and categories of dangerous goods according to the Australian Code for the Transport of Dangerous Goods by Road or Rail 7th Edition (ADG Code).

This guidance note assists duty holders comply with the requirements for placards and manifests under the WHS Regulations. It shows the link between GHS classes and categories and equivalent classes of dangerous goods under the ADG Code.

Column 1	Column 2	Column 3	Column 4	Column 5	ADG Code Classification
Item	Description of hazardous chemical		Placard quantity	Manifest quantity	
1	Flammable gases	Category 1	200 L	5 000 L	2.1
2	Gases under pressure	Acute toxicity, categories 1, 2, 3 or 4 Note 1—Category 4 only up to LC ₅₀ of 5000 ppmV	50 L	500 L	2.3 - Note 2
3		Skin corrosion categories 1A, 1B or 1C	50 L	500 L	2.3 - Note 2
4		Aerosols (including flammable aerosols)	5000 L	10 000 L	2.1 or 2.2
5		Not specified elsewhere in this table	1000 L	10 000 L	2.2
6	Flammable liquids	Category 1	50 L	500 L	3 (PG I)
7		Category 2	250 L	2500 L	3 (PG II)
8		Category 3	1000 L	10 000 L	3 (PG III)
9		Any mix of chemicals from Items 6 – 8 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 L	10 000 L	
10		Category 4	10 000 L	100 000 L	Note 3
11	Self-reactive substances	Type A	5 kg or L	50 kg or L	GTDTBT – Note 4
12		Type B	50 kg or L	500 kg or L	4.1 (Type B)
13		Type C-F	250 kg or L	2500 kg or L	4.1 (Type C-F)
14	Flammable solids	Category 1	250 kg	2500 kg	4.1 (PG II)
15		Category 2	1000 kg	10 000 kg	4.1 (PG III)
16		Any mix of chemicals from Items 12 - 15 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 kg or L	10 000 kg or L	
17	Pyrophoric liquids and Pyrophoric solids	Category 1	50 kg or L	500 kg or L	4.2 (PG I)
18	Self heating substances and mixtures	Category 1	250 kg or L	2500 kg or L	4.2 (PG II)
19		Category 2	1000 kg or L	10 000 kg or L	4.2 (PG III)
20		Any mix of chemicals from Items 17 - 19 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 kg or L	10 000 kg or L	
21	Substances which in contact with water emit flammable gas	Category 1	50 kg or L	500 kg or L	4.3 (PG I)
22		Category 2	250 kg or L	2500 kg or L	4.3 (PG II)
23		Category 3	1000 kg or L	10 000 kg or L	4.3 (PG III)
24		Any mix of chemicals from Items 21 - 23 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 kg or L	10 000 kg or L	
25	Oxidising liquids and Oxidising solids	Category 1	50 kg or L	500 kg or L	5.1 (PG I)
26		Category 2	250 kg or L	2500 kg or L	5.1 (PG II)
27		Category 3	1000 kg or L	10 000 kg or L	5.1 (PG III)
28		Any mix of chemicals from Items 25 - 27 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 kg or L	10 000 kg or L	
29	Organic peroxides	Type A	5 kg or L	50 kg or L	GTDTBT – Note 4
30		Type B	50 kg or L	500 kg or L	5.2 (Type B)
31		Type C-F	250 kg or L	2500 kg or L	5.2 (Type C-F)
32		Any mix of chemicals from Items 30 and 31 where none of the items exceeds the quantities in columns 4 or 5 on their own	250 kg or L	2500 kg or L	
33	Acute toxicity (Note 5)	Category 1	50 kg or L	500 kg or L	6.1 (PG I)
34		Category 2	250 kg or L	2500 kg or L	6.1 (PG II)
35		Category 3	1000 kg or L	10 000 kg or L	6.1 (PG III)
36		Any mix of chemicals from Items 33 - 35 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 kg or L	10 000 kg or L	
37	Skin corrosion	Category 1A	50 kg or L	500 kg or L	8 (PG I)
38		Category 1B	250 kg or L	2500 kg or L	8 (PG II)
39		Category 1C	1000 kg or L	10 000 kg or L	8 (PG III)
40	Corrosive to metals	Category 1	1000 kg or L	10 000 kg or L	8 (PG III)
41		Any mix of chemicals from Items 37 - 40 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000 kg or L	10 000 kg or L	
42	Unstable explosives		5 kg or L	50 kg or L	GTDTBT – Note 4
43		Any mix of chemicals from Items 11, 29 and 42 where none of the items exceed the quantities in columns 4 or 5 on their own	5 kg or L	50 kg or L	GTDTBT – Note 4

- NOTES:**
- For item 2, gases under pressure with acute toxicity category 4 only applies up to a LC₅₀ of 5000 ppmV, which is equivalent to Div. 2.3 under the ADG code.
 - Division 2.3 under the ADG Code includes gases and vapours as acutely toxic (categories 1, 2 and 3) and gases which are corrosive to skin (category 1).
 - Only liquids with a flash point of up to 93°C are classified as flammable liquids under the WHS Regulations. C1 combustible liquids with flash points between 93°C and 150°C are not classified as flammable liquids under the GHS or WHS Regulations.
 - GTDTBT = Goods too dangerous to be transported.
 - For gases classified with Acute Toxicity, the placard and manifest quantities as defined under item 2, rather than items 33-36, should be used.

Flammable liquid classification: For the purposes of this table, if a flammable liquid of category 4 is used, handled or stored in the same spill compound as one or more flammable liquids of categories 1, 2 or 3, the total quantity of flammable liquid is determined as if the flammable liquid of category 4 had the same classification as the flammable liquid in the spill compound with the lowest flash point. For example, 1000 L of flammable liquid category 1 and 1000 L of flammable liquid category 4 is considered to contain 2000 L of flammable liquid category 1.

Appendix D: Example: Placards

OUTER WARNING PLACARD



Figure 13.1 Form and dimensions of outer warning placard



BULK STORAGE PLACARD

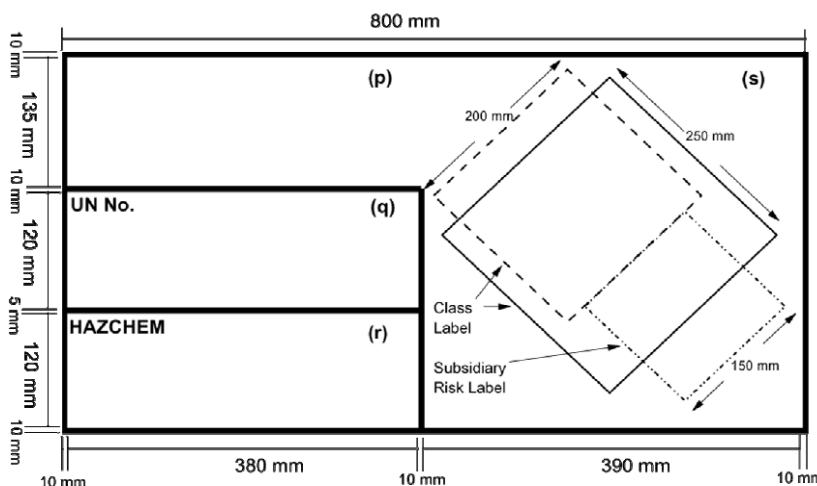


Figure 13.2 Template for a placard for a hazardous chemical stored in bulk





















SOME DIAMOND CLASS LABELS





Appendix E: Pictograms and Labels

GHS symbols and meanings

 Acute toxicity via oral, dermal or inhalation	 Explosives, self-reactive substances, organic peroxides	 Flammable, pyrophoric, self-heating substances; water reactive
 Oxidising substances	 Hazardous to the environment	 Corrosive, skin damage, eye damage
 Aspiratory or respiratory hazard, carcinogenicity, mutagenicity	 Compressed, liquefied or dissolved gases	 May cause immediate health effect—skin, eye, respiratory

 Chronic health hazard (eg carcinogen, mutagen, reproductive hazard)	 Environmental hazard	 Explosive
 Acute toxicity	 Flammable	 Oxidiser
 Compressed gas	 Health hazard, eg irritant or sensitiser	 Corrosive

GHS compliant label

Flammosol		Product identifier
Contains: Aliphatic hydrocarbons 95% Toxicole 5%		Identity and proportion of each chemical ingredient
500ml		
DANGER		Signal word
		Pictograms
Highly flammable liquid and vapour Toxic if swallowed Causes skin irritation		Hazard statements
<p>Keep away from sparks and open flames. – No smoking. Wear protective gloves and eye and face protection.</p> <p>Wash hands thoroughly after handling.</p> <p>Do not eat, drink or smoke when using this product.</p> <p>Store locked up in well ventilated place. Keep cool.</p> <p>Dispose of contents / container in accordance with local regulations.</p> <p>Refer to the Safety Data Sheet before use.</p>		Precautionary statements
<p>IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Rinse mouth.</p> <p>IF ON SKIN (or hair): Take off contaminated clothing and wash before re-use.</p> <p>If skin irritation occurs: Get medical advice/attention. Rinse skin using plenty of soap and water.</p> <p>In case of fire: Use powder for extinction</p>		
Madeup Chemical Company, 999 Chemical Street, Chemical Town, My State. Telephone: 1300 000 000		Other useful information
		Name, address and telephone number of the Australian manufacturer or importer.

Appendix F: Segregation Chart

To prevent unintended interactions between chemicals, storage areas should be designed to segregate incompatible chemicals and dangerous substances as much as possible.

Segregation may be achieved by providing physical barriers, such as walls, partitions and containers or by using distance to separate them.

Segregation also needs to consider the potential for chemicals to mix in the event of a spill.

Below is a segregation chart with general recommended segregation requirements.

Class of goods	2.1	2.2	2.2 SR 5.1	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	8	9	Combustible liquids
2.1	✓ A	✓ B	✗ S1	✗ S1	✗ S2	✗ S2	✗ S4	✗ S5	✗ S2	✗ S4	✗ S1	✗ S1	✓ C	✗ S2
2.2	✓ B	✓ A	✓ B	✗ S1	✗ S2	✗ S2	✗ S4	✗ S5	✓ B	✗ S4	✓ B	✗ S1	✓ C	✗ S2
2.2 SR 5.1	✗ S1	✓ B	✓ B	✗ S1	✗ S2	✗ S2	✗ S4	✗ S5	✗ S2	✗ S4	✓ C	✗ S1	✓ C	✗ S2
2.3	✗ S1	✗ S1	✗ S1	✓ I	✗ S2	✗ S2	✗ S4	✗ S5	✗ S2	✗ S4	✓ C	✗ S1	✓ C	✗ S2
3	✗ S2	✗ S2	✗ S2	✗ S2	✓ A	✗ S3	✗ S4	✗ S5	✗ S2	✗ S4	✗ S3	✓ B	✓ B	✓ B
4.1	✗ S2	✗ S2	✗ S2	✗ S2	✗ S2	✓ A	✗ S4	✗ S5	✗ S2	✗ S4	✗ S3	✓ B	✓ B	✗ S2
4.2	✗ S4	✗ S4	✗ S4	✗ S4	✗ S4	✗ S4	✓ A	✗ S5	✗ S4	✗ S4	✗ S4	✓ B	✓ B	✗ S4
4.3	✗ S5	✗ S5	✗ S5	✗ S5	✗ S5	✗ S5	✗ S5	✓ A	✗ S5	✗ S5	✗ S5	✗ S5	✓ G	✗ S5
5.1	✗ S2	✓ B	✗ S2	✗ S2	✗ S2	✗ S2	✗ S4	✗ S5	✓ D	✗ S4	✓ C	✗ S3	✓ C	✗ S3
5.2	✗ S4	✗ S4	✗ S4	✗ S4	✗ S4	✗ S4	✗ S4	✗ S5	✗ S4	✓ E	✓ CE	✗ S4	✓ CE	✗ S4
6.1	✗ S1	✓ B	✓ C	✓ C	✗ S3	✗ S3	✗ S4	✗ S5	✓ C	✓ CE	✓ A	✓ H	✓ B	✗ S3
8	✗ S1	✗ S1	✗ S1	✗ S1	✓ B	✓ B	✓ B	✗ S5	✗ S3	✗ S4	✓ H	✓ F	✓ C	✗ S3
9	✓ C	✓ C	✓ C	✓ C	✓ B	✓ B	✓ B	✓ G	✓ C	✓ CE	✓ B	✓ C	✓ A	✓ B
Combustible liquids	✗ S2	✗ S2	✗ S2	✗ S2	✓ B	✗ S2	✗ S4	✗ S5	✗ S3	✗ S4	✗ S3	✗ S3	✓ B	✓ A

Segregation guidance notes for incompatible goods:

S1	Segregate these goods by 3m or more in a well ventilated area. For liquid dangerous goods the distance is measured from the edge of the spill catchment area. See supplementary notes 6 and 7 .
S2	Segregate by 5 m or more. If one of the dangerous goods is a liquid, measure the distance from the edge of the spill catchment area. Liquid dangerous goods should be located within a separate spill catchment area. See supplementary notes 6 and 7 .
S3	Segregate by 3 m or more for PG III goods and 5m or more for PG II, PG I goods or where the goods may react dangerously. If both are solids then a minimum of 1m separation may be used. Where one of the goods is a liquid the distance is measured from the edge of the spill catchment area. See supplementary notes 6 and 7 .
S4	Segregation preferred by the use of fire-rated partitioned areas. Consider use of separate detached building for organic peroxides and for highly pyrophoric class 4.2 goods.
S5	Segregation of class 4.3 preferred by use of a separate, detached building without water based fire suppression system.

DANGEROUS GOODS COMPATIBILITY AND GHS LABELLING ELEMENTS DISPLAY

CLASS	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6	8
2.1											
2.2											
2.3											
3											
4.1											
4.2											
4.3											
5.1											
5.2											
6											
8											

SEPARATE	Dangerous goods of these two classes should be kept apart by at least 3 metres or other suitable control measures. Consult Safety Data Sheet or supplier.
SEGREGATE	Dangerous goods of these two classes are likely to interact with each other in such a way as to significantly increase risk and should not be kept in the same area unless it can be demonstrated that the risks can be fully controlled. Consult SDS for further guidance.
ISOLATE	Dedicated stores or storage cabinets are recommended. Adequate separation from other buildings and boundaries is required. Consult SDS for further guidance.
REFERS TO SDS	Segregation of these two classes may be necessary. Refer to the SDS for further guidance. All Class 9 dangerous goods should be segregated in accordance with the SDS.
OK	Dangerous goods of the same class have similar primary hazards and are usually considered compatible. Consult with the SDS or supplier about requirements for individual substances.

Australian Dangerous Goods Code at www.ntc.gov.au Australian Standard 3833: The Storage and Handling of Mixed Classes of Dangerous Goods, in Packages and Intermediate Bulk Containers.

CLASS TYPES:

Class 2.1—Flammable Gas
 Class 2.2—Non Flammable Non Toxic Gas
 Class 2.3—Toxic Gas
 Class 3—Flammable Liquid
 Class 4—Flammable Solid
 Class 4.2—Spontaneously Combustible
 Class 4.3—Dangerous When Wet
 Class 5.1 – Oxidising Agent
 Class 5.2 – Organic Peroxide
 Class 6—Toxic
 Class 8—Corrosive

Source: University of Wollongong Dangerous Goods Compatibility Guide

Appendix G: Legislation, Codes of Practice, Standards and Safeguards

Legislation

- *Work Health and Safety Act 2012* (SA);
- *Work Health and Safety Regulations 2012* (SA);
- *Dangerous Substance Act 1979* (SA);
- *Dangerous Substance Regulations 2002* (SA);
- *Mines Act 1971* (SA); and
- *Mining Regulations 2011* (SA).

Codes of Practice

- Code of Practice - Managing Risks of Hazardous Chemicals in the Workplace;
- Code of Practice - Labelling of Workplace Hazardous Chemicals;
- Code of Practice - How to Manage and Control Asbestos in the Workplace;
- Code of Practice - How to Safely Remove Asbestos;
- Australian Code for The Transport of Dangerous Goods by Road and Rail (ADG Code); and
- National Construction Code (NCC).

Australian / New Zealand Standards

Chemicals

- AS 2187: Explosives - storage, handling and use;
- AS 1596: The storage and handling of LP Gas;
- AS 1894: Code of practice for the safe handling of cryogenic fluids;
- AS 2714: Storage and handling of Class 5.2 substances (organic peroxides);
- AS 4326: Storage and handling of oxidising agents;
- AS/NZS 4452: Storage and handling of toxic substances; and
- AS 3780: Storage and handling of corrosive substances.

Fire Protection Systems

- AS 1670: Automatic fire alarm installations;
- AS 2118: Automatic sprinkler installations;
- AS 2419: Fire Hydrant installations;
- AS 2441: Fire hose reel installations; and
- AS 2444: Selection and location (of fire extinguishers).

Storage and installations

- AS 1319: Safety signs for the occupational environment;
- AS 1940: The storage and handling of flammable and combustible liquids;
- AS 4332: Storage and handling of gas cylinders;
- AS 4289: Oxygen and acetylene reticulation systems; and
- AS 1692: Tanks for flammable and combustible liquids.

Personal Protective Equipment (PPE)

- AS/NZS 1715: Respiratory protective devices (selection);
- AS/NZS 1716: Respiratory protective devices;
- AS/NZS 1801: Occupational protective helmets;
- AS/NZS 2210.1: Safety, protective and occupational footwear;
- AS/NZS 1336: Recommended practice for eye protection; and
- AS/NZS 1337.4: Personal Eye Protection.

Safeguards

- SafeWork SA Safeguards: available from SafeWork SA website www.safework.sa.gov.au

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Traffic Management Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

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Traffic Management Guide

AIM

The aim of this Guidance Material is to assist mines and quarries in how to manage roads and other vehicle operating areas, to reduce the risk of the hazards associated with vehicle and pedestrian movement and interaction around mines and quarries. It also provides information on preparing a Principal Mining Hazard Management Plan that identifies the hazards, assesses the risks and outlines risk control measures associated with roads and other vehicle operating areas in mines, quarries and exploration sites.

Introduction

Managing traffic is essential to providing a safe workplace. Traffic can include cars, road trucks, dump trucks, forklifts, excavators, loaders, graders, mobile plant, drill rigs and pedestrians such as workers and visitors.

Vehicles including powered mobile plant moving in and around workplaces, reversing, loading and unloading are activities frequently linked with workplace injuries and fatalities.

Preparation of a detailed Traffic Management Plan and Principal Mining Hazard Management Plan along with implementation of measures identified in the approved plans is essential to ensure the safety of all workers at site. A detailed Traffic Management Plan will also assure the smooth operation of the sites road network.

1. Who has duties in relation to traffic management?

Under the *Work Health and Safety Act 2012* (SA), all persons who conduct a business or undertaking (PCBU) have a duty of care to ensure, so far as is reasonably practicable, that workers and other persons are not put at risk from work carried out as part of the business or undertaking.

In addition the *Work Health and Safety Regulations 2012* (SA) identifies “roads and other vehicle operating areas” as a Principal Mining Hazard. To effectively control the risks, the mine operator must follow a risk management process and prepare and implement a Principal Mining Hazard Management Plan (PMHMP) which is included in the Work Health and Safety Management System (WHSMS).

2. Identification of the hazards

There are a number of ways to identify hazards at a mine or quarry. Some of these may include:

- a) Observing the site to identify areas where pedestrians and vehicles interact. Think about the layout of your site, if work is done close to high pedestrian areas, when traffic volumes are higher, where potential blind spots are and other areas of poor visibility;

- b) Consulting with your workers as they can provide valuable information about potential hazards; and
- c) Reviewing available information, including incident records, near miss reports and accident reports.

Trends or common problems can be identified from the information collected and may show locations or areas that are more hazardous. It could indicate a problem with the design and layout of that particular area of the site or the way work is carried out there. These trends may help in deciding which areas to address as a priority.

The types of vehicle activities conducted across the mine or quarry will indicate the sorts of hazards that may be present. The unwanted events associated with roads and other vehicle operating areas include:

- Vehicles rolling over;
- Vehicles going over edges;
- Ground failure onto or below vehicles;
- Collisions between vehicles;
- Uncontrolled movement of vehicles;
- Pedestrian interaction with vehicles;
- Vehicles contacting overhead power lines and structures;
- Contact with environmental hazards;
- Dust inhalation;
- Whole body vibration; and
- Slips trips and falls while getting onto or off vehicles.

Note: A checklist to assist you to identify traffic management hazards is available on the MAQOHSC website.

3. Assessing the risks

Assessing the risks will help the mine/quarry operator take the correct action to eliminate the risk or where this is not reasonably practicable, minimise the risks associated with roads and other vehicle operating areas. When undertaking a risk assessment to determine control measures, the following factors that contribute to the unwanted event occurring need to be considered:

1. Mobile plant characteristics, including stopping distances, manoeuvrability, operating speeds, driver position, driver line of sight, remote control mobile plant;
2. The effects of expected environmental conditions during operating periods including the time of day, visibility, temperature and the effects of weather on road conditions;
3. The impact of road design and characteristics including grade, camber, surface, radius of curves and intersections;
4. The impact of mine/quarry design including banks and steep drops adjacent to plant operating areas;
5. The potential for interactions between mobile plant with different operating characteristics including heavy and light vehicles, volume of traffic and speed of traffic;

6. The potential for interactions between mobile plant and pedestrians including consideration of park up areas and driver access;
7. The potential for interaction between mining mobile plant and public traffic; and
8. The potential for interaction between mobile plant and fixed structures including overhead and underground power lines, tunnel walls and roofs.

Note: *A Principal Mining Hazard – Roads and Other Vehicle Operating Areas Risk Assessment tool is available on the MAQOHSC website.*

4. Who is involved?

A risk assessment must be undertaken in consultation with your workers and their Health and Safety Representatives (if any), who will be using the road or vehicle operating area.

If there is more than one business or undertaking (e.g. contractors) involved at your workplace you must consult them and their workers as part of the risk assessment process.

It is often more effective to involve a team of people in the risk assessment process to draw on a range of knowledge and experience to ensure risks are eliminated or reduced so far as is reasonably practicable.

5. Controlling the risks

Work Health and Safety legislation requires a PCBU (mine / quarry operator) to do all that is reasonably practicable to eliminate or minimise risks.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk control. You must work through this hierarchy to manage risks.

The first thing to consider is whether hazards can be completely removed from the workplace. For example, risks can be eliminated by physically separating pedestrian routes from vehicle areas. This could be done by conducting activities at times when pedestrians are not present, using physical barriers or overhead walkways.

If it is not reasonably practicable to completely eliminate the risk then consider one or more of the following options in the order they appear below to minimise risks, so far as is reasonably practicable:

- a) Substitute the hazard for something safer e.g. replace forklifts with other load shifting equipment like a walker stacker or pallet jacks
- b) Isolate the hazard from people e.g. by creating a delivery area away from other pedestrians or work activities
- c) Use engineering controls e.g. speed limiters on dump trucks or presence sensing devices on loaders.

If after implementing the above control measures a risk still remains, consider the following controls in the order below to minimise the remaining risk, so far as is reasonably practicable:

- a) Use administrative controls e.g. warning signs or schedule delivery times to avoid or reduce the need for pedestrians and vehicles to interact; and
- b) Use personal protective equipment (PPE) e.g. high visibility clothing.

A combination of the controls set out above may be used if a single control is not enough to minimise the risks.

You need to consider all possible control measures and make a decision about which are reasonably practicable for your workplace. Deciding what is reasonably practicable includes the availability and suitability of control measures, with a preference for using substitution, isolation or engineering controls to minimise risks before using administrative controls or personal protective equipment. Cost may also be relevant, but you can only consider this after all other factors have been taken into account.

Due to roads and other vehicle operating areas being identified as a Principal Mining Hazard, you will need to take into account the following factors when establishing and managing risk controls for mine and quarry roads.

1. Design of the roads and operating areas, such as
 - i. Terrain and geotechnical considerations
 - ii. Prevailing weather and environmental conditions
 - iii. Primary Roads design, construction and maintenance
 - iv. Secondary roads design, construction and maintenance
 - v. Road widths
 - vi. Road gradients
 - vii. Road curvature – Vertical and Horizontal
 - viii. Sight distance
 - ix. Stopping distances
 - x. Drainage
 - xi. Road surface
 - xii. Edge protection
 - xiii. Intersections
 - xiv. Parking areas
 - xv. Overhead power lines and structures
 - xvi. Dumps and pads
 - xvii. Workshops and fixed plant areas
 - xviii. Runaway vehicle provisions
2. Construction and Maintenance
3. Separation and Segregation of Vehicles and Pedestrians
4. Restricted Access Exclusion Zones
5. Vehicle Selection
6. Communications
7. Lighting
8. Traffic rules
9. Signage
10. Training
11. Inspections and monitoring

Note: *The Principal Mining Hazard – Roads and Other Vehicle Operating Areas Risk Assessment tool, available on the MAQOHSC website takes into account the above factors and provides guidance on each.*

6. Traffic Management Plans

As part of your risk control measures, a detailed Traffic Management Plan will need to be developed. A Traffic Management Plan should include (but is not limited to) the following:

1. A description of the vehicles used onsite and works conducted
2. Responsibilities of people managing traffic in the workplace
3. Responsibilities of people expected to interact with traffic in the workplace
4. Instructions or procedures for controlling traffic including in an emergency
5. Traffic flows and directions
6. Speed limits
7. Rights of way on roads and at intersections
8. Controls for light vehicles interacting with heavy vehicles and mobile plant
9. Buildings, e.g.: offices, workshops, stores, packing sheds, etc.
10. Emergency and evacuation assembly points
11. Signage
12. Weighbridges
13. Restricted areas, exclusion zones and shared zones
14. Fuel storage locations
15. Stockpiles
16. Loading areas
17. Tarping and tie down areas
18. Visitor parking
19. Equipment parking
20. Delivery and drop off areas
21. Land marks such as dams, rivers, bridges, railways, etc.
22. Services such as power lines
23. Communication used on site

A Traffic Management Plan should be regularly monitored and reviewed and importantly following an incident or near miss, to ensure it is effective and takes into account changes at the workplace. You should ensure workers are familiar with the Traffic Management Plan and you should provide information, instruction and training on its use.

7. Information, training, instruction and supervision

Before any vehicles or mobile plant is used on your site you must provide anyone who will use it with the information, training, instruction or supervision necessary to protect them and others from the risks associated with roads and other vehicle operating areas in the workplace.

Workers including contractors who are required to perform duties associated with traffic management at the workplace should be trained to perform those duties. Training should be provided to workers by a competent person.

Responsibilities for health and safety management must be clearly allocated. It is important each worker, contractor, subcontractor, visiting driver and other relevant people clearly understand their role in following safe work practices and taking reasonable care of themselves and others.

You should provide supervision to ensure safety procedures are being followed, particularly if you are relying on administrative control measures to minimise risks.

You must ensure so far as is reasonably practicable, everyone who has access to your workplace including visitors are provided with information necessary to protect them from risks to their health and safety, for example instructions on designated safe routes, parking areas, pedestrian exclusion zones and speed limits. This could be addressed through an induction process at your workplace.

Visitors should report to the reception area or site office and be given information on the safety procedures for the workplace before they are allowed into areas where vehicles and powered mobile plant are used.

8. Review of control measures

It is important to monitor risks and check the control measures to ensure they remain effective. *Work Health and Safety Regulations 2012* (SA) requires a review of the control measures to be undertaken whenever there are any changes associated with the road or other vehicle operating areas.

In undertaking the review, workers using the road or vehicle operating area, their Health and Safety Representatives (if any) and other PCBUs and their workers must be consulted.

The following questions should be considered:

1. Are the control measures working effectively in both their design and operation?
2. How effective is the risk assessment process? Are all hazards being identified?
3. Are workers actively involved in the risk management process? Are they openly raising health and safety concerns and reporting problems promptly?
4. Have new work methods or new equipment made the job safer?
5. Is the Traffic Management Plan effective and accurate?
6. Are safety procedures being followed?
7. Has instruction and training provided to workers been successful?
8. If new legislation or new information becomes available, does it indicate current controls may no longer be the most effective?

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au, or call 1300 551 832

REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

How to Manage Work Health and Safety Risks, Code of Practice (SafeWork SA)

Roads and Other Vehicle Operating Areas, Draft Code of Practice (Safe Work Australia)

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Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation's structure.

1. Remove all ***“(insert company name)”*** sections and replace with registered business name
2. Remove all ***“(insert name of quarry/mine)”*** sections and replace with quarry/mine pit name.
3. Remove all ***“(insert senior management position e.g. site manager)”*** and replace with relevant position
4. Remove all ***“(insert location)”*** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all ***“Note”*** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Traffic Management Plan Template

(Insert Company Name and Company Logo or Site Photo)

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1. Introduction

(insert company name) (insert mine or quarry) is located approximately *(insert kms and direction)* from *(insert town)* and *(insert kms and direction)* of Adelaide, South Australia. The *(insert mining or quarrying)* operations currently extracts *(insert types of materials)* using *(insert extraction method, i.e. drill and blast)*, load and haul *(insert open cut or underground)* using a *(insert tyre processing operation i.e. crushing, screening separation process)*.

The site also conducts sales activities with contractors and the general public sector. The types of vehicles and mobile plant that enter and are operated on this site range from *(insert any of the following - light vehicles, road trucks, front end loaders, articulated or ridged haul trucks, graders, skid steer, drill rigs, excavators, scrapers)*.

The risks associated with traffic and its movements are directly related to the location of movement, vehicles design, traffic volumes and site layout including road design. This traffic management plan shall identify control measures to address those issues.

2. Purpose

The purpose of this traffic management plan is to establish the minimum work health and safety requirements for vehicles, design of roads and operating areas to ensure workers and other persons are protected against harm from *(insert company name)* traffic activities.

3. Scope

This traffic management plan is relevant to all *(insert company name)* workers, contractors and visitors and applies to all *(insert company name) (insert mining or quarrying)* sites.

4. Definitions

Term	Definition
Haul road	A road that is used primarily by haul trucks to transfer products around the site.
Haul truck	A dump or articulated truck which is used to transfer products around the site.
Light vehicles	Any motor vehicle (except a bus, trailer or motorcycle) with a gross vehicle weight rating of 10,000 lbs (4545.45 kg) or less.
Heavy vehicles (road trucks)	A large motor vehicle with a gross vehicle weight rating greater than 10,000 lbs (4545.45 kg).
Pedestrian crossing	A street crossing where pedestrians have right of way; this is indicated by a pedestrian crossing sign and white or yellow stripes on the road's surface.
Safety berm	Refers to an earthen mound which is used to protect the item behind the wall and / or to prevent mobile equipment from falling from or into a roadway, embankment or ravine.
Very-high frequency (VHF)	Radio frequency electromagnetic waves in the range between 30 MHz and 300 MHz.
Ultra-high frequency (UHF)	Radio frequency electromagnetic waves in the range between 300 MHz and 3 GHz, which is higher than those of very-high frequency.

5. References

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

How to Manage Work Health and Safety Risks, Code of Practice (SafeWork SA)

Principal Mining Hazards - Roads and Other Vehicle Operating Areas, Draft Code of Practice (Safe Work Australia)

Principal Mining Hazards - Fire / explosion

Principal Mining Hazards - Ground or strata failure (comment e.g. traffic control for unstable roads / ramp cracking / slip failures)

Principal Mining Hazards - Air quality or dust or other airborne contaminants (comment e.g. traffic control during dust storms)

Principal Mining Hazard Management Plans (Mining and Quarry Occupational Health and Safety Committee)

General guide for workplace traffic management (Safe Work Australia)

Traffic Management Guide (Mining and Quarry Occupational Health and Safety Committee)

AS 1657:2013 - Fixed platforms, walkways, stairways and ladders - Design, construction and installation

AS 1744:1975 - Standard Alphabets for Road Signs

AS/NZS 1906.1:2007 - Retro-reflective materials and devices for road traffic control purposes – Retro-reflective sheeting

AS 1940:2004 - Storage and handling of combustible liquids

6. Policy Statement

The Work Health and Safety Policy and Work Health and Safety Management System are endorsed by the **(insert position and name of most senior person e.g. Managing Director, John Citizen) of (insert company name)**.

(insert company name) is committed to fulfilling its obligations under the *Work Health and Safety Act 2012 (SA)* and the *Work Health and Safety Regulations 2012 (SA)* and protecting workers and other persons against harm from its operations.

7. Legislative Requirements

Under the *Work Health and Safety Act 2012 (SA)*, all persons who conduct a business or undertaking (PCBU) have a duty of care to ensure, so far as is reasonably practicable, that workers and other persons are not put at risk from work carried out as part of the business or undertaking.

In addition, Chapter 10 (Mines) of the *Work Health and Safety Regulations 2012 (SA)* identifies “vehicles and other operating areas” as a Principal Mining Hazard (PMH). To effectively control the risks, the mine operator must follow a risk management process and prepare and implement a Principal Mining Hazard Management Plan (PMHMP) which is included in the Work Health and Safety Management System (WHSMS).

7.1 Principal Mining Hazards Associated with the Traffic Management Plan

The following Principal Mining Hazards below interact with the management of traffic on site.

- Road and other vehicle operating areas;
- Fire / Explosion;

- Ground or strata failure (comment e.g. traffic control for unstable roads / ramp cracking / slip failures); and
- Air quality or dust or other airborne contaminants (comment e.g. traffic control during dust storms).

Note: Add any additional Principal Mining Hazards to the above list which interact with the management of traffic and create a risk to work health and safety.

7.2 Movement of Mobile Plant

The mine operator of a mine must manage risks to work health and safety associated with the movement of mobile plant at the mine and must have regard for:

- The design, layout, construction and maintenance of all roads and other areas;
- Interactions between mobile plant, especially between large and small mobile plant;
- Interactions between mobile plant and fixed plant or structures;
- Interactions between mobile plant and pedestrians (including the use of pre-movement warnings for mobile plant in mine workings);
- The operation of remotely controlled mobile plant; and
- The maintenance, testing and inspection of brakes, steering, lights and other safety features of the mobile plant.

8. Determining Risk

(insert company name) in consultation with its workers and contractors, have identified the hazards and assessed the risks associated with traffic management on this site. The following criteria have been taken into consideration:

- Workers, contractors and visitors;
- Movement of vehicles and mobile plant;
- Site design;
- Bodies of water;
- Refueling stations;
- Information, instruction and training;
- Prior history of incidents related to vehicles and other operating areas; and
- Risks associated with the interaction of other Principal Mining Hazards.

9. Workers, Contractors and Visitors

All personnel shall:

- Wear a high visibility “vest or shirt” to enhance their visibility / location at all times whilst on **(insert company name)** site;
- Comply with all site traffic management policies and procedures, which include but not limited to, inductions, notices, site signage and directives from site management; and
- Additionally, contractors and visitors shall report to the weighbridge and sign in using the site visitors and contractors register.

10. Vehicles and Mobile Plant

All vehicles entering the site for products or operating on site shall have as a minimum:

- **(insert Ultra-high frequency / Very-high frequency)** two way radio capabilities’;
- A rotating orange flashing light operating at all times; and
- Maintained in a roadworthy condition.

Note: Contractor and visitors vehicles that do not comply shall be transported or escorted by a **(insert company name)** light vehicle.

10.1 Light Vehicles (Not exceeding 4.5 t)

Light vehicles owned, leased and operated by **(insert company name)** shall comply with the above, in addition to the following requirements:

- Head lights, front and back indicator lights and brake light;
- A fire extinguisher;
- First-aid kits;
- Serviced as per manufactures instructions; and
- Safe operating procedures and emergency plans are located in the vehicle.

Note: Additional measures may be identified and required as per the hazard identification and assessment and control of risk **(four wheel drive capability, high-visibility reflective taping, orange flag 3.2m high)**.

- All personnel driving a light vehicle on a **(insert company name)** site shall have a current valid drivers licence.
- **(insert company name)** workers and contractors are obligated to notify the Mine operator when their drivers licence has been suspended, cancelled or expired.
- No **(insert company name)** worker shall drive any company vehicle on site or on a public road when their drivers licence has been suspended.

10.2 Mobile Plant - Haul Trucks, Front End Loaders, Graders, Water Cart, Forklift, Skid Steer

Mobile plant owned, leased and operated by **(insert company name)** shall comply with the following requirements:

- Head lights, front and back indicator lights and brake light;
- Reversing beeper;
- A fire extinguisher;
- First-aid kits;
- Serviced as per manufactures instructions; and
- Safe operating procedures and emergency plans located in the mobile plant.

Note: Additional measures may be identified and required as per the hazard identification and assessment and control of risk **(e.g. monitor and reversing camera, proximity and collision avoidance devices)**.

All mobile plant shall use the following horn signals to alert other workers and vehicle operators of the vehicles intent to move from its position.

- 1 horn blast and wait 5 seconds prior to starting the vehicle.
- 2 horn blast and wait 5 seconds prior to driving forward.
- 3 horn blast and wait 5 seconds prior to reversing the vehicle.

Front-end loaders and haul trucks shall have a reversing sensor installed.

Front-end loaders, graders and bulldozers shall travel with (e.g. buckets, blades or rippers) between 0.5 metres and one metre from the ground.

Haul trucks shall travel around the site with their body in a lowered position and with their headlights on at all times (day and night).

All operators shall prior to exiting mobile plant, ensure:

- One row of tyres on wheeled mobile plant are placed in a V-Drain or against a safety berm or bump stop when at a go-line area;
- Be fundamentally stable (on level ground) prior to applying parking brake when away from the go-line;
- Front-end loaders, excavators, graders and bulldozers shall have their buckets, blades and attachments lowered to the ground; and
- Placed in neutral and the ignition turned off.

10.3 Road Trucks (Heavy Vehicles - Company Owned, Contractors and Private)

Road trucks that enter or are operated on an *(insert company name)* site shall have the minimum requirements:

- Head lights, front and back indicator lights and brake lights;
- Tarping system that can be operated from the ground or within the cabin; and
- Reversing beepers.

All operators shall prior to exiting road trucks, ensure:

- Be fundamentally stable (on level ground) prior to applying parking brake; and
- Placed in neutral and the ignition turned off.

11. Site Design

(insert company name) mining and quarrying areas shall be designed to ensure while workers, contractors and visitors are operating vehicles or mobile plant, they are, so far as reasonably practicable, safe from risk to health and safety.

11.1 Buildings and Structures (Weighbridge, Offices, Workshops and Fixed Plant Areas)

All buildings and structures shall be positioned on site in such a manner that eliminates, where reasonably practicable, the risks to personnel who use the buildings or structures or potential damage to the buildings or structures from vehicles, mobile plant and environmental conditions.

Where elimination of risk is not reasonably practicable, control measures shall be implemented to manage the risks.

Buildings and structures shall be protected by distance barriers (earthen mounds, guard railings concrete blocks etc.)

Suitable and adequate lighting shall be provided around buildings and structures to illuminate the immediate areas during night time operations and before sun rise or after sun set.

Buildings and structures shall not be positioned next to embankments or edges of drop offs where there is a risk of personnel being injured or buildings and structures being damaged by collapsing / falling ground.

Buildings and structures shall be positioned above flood plain levels and provided with adequate drainage in the event of heavy rains.

Service areas for deliveries, pick-ups and maintenance shall be provided and clearly identified around buildings and structure.

11.2 Parking Areas (Car Parks, Go-lines, Offices, Workshops and Fixed Plant Areas)

All park areas shall be well illuminated with artificial lighting to safely move about vehicles, parking and crossing areas when working hours dictate starting / finishing times are prior to day break or after sun set (insufficient natural light present).

Car parking areas shall:

- Be constructed with **(insert material)** which will define the boundaries of the parking area;
- Have **(insert speed)** Kph speed limit signage clearly sign posted on entry and exit to parking areas;
- Have separate entry and exit point which are sign posted;
- Ensure the surface is sheeted with suitable material to prevent muddy and slippery conditions forming;
- Ensure the surface areas is level and free from pot holes and pooled water;
- Have clearly defined parking areas **(sun flower yellow line marking paint on concrete or bitumen)**; and
- Signage to direct personnel to reporting weighbridge / offices areas when they first arrive on site.

Go-line areas shall:

- Be constructed with earthen mounds which will define the boundaries of the parking area;
- Have **(insert speed)** Kph speed limit signage clearly sign posted on entry to parking area;
- Have separate entry and exit point which are sign posted;
- Be of a suitable size to accommodate all mobile plant;
- Ensure the surface is sheeted with suitable material to prevent muddy and slippery conditions forming;
- Ensure the surface areas are level and free from pot holes and pooled water; and
- Have V Drains or bump stops installed for mobile plant to position themselves into or against to ensure they are fundamentally stable when parked and left unattended.

Office, workshop and fixed plant areas shall have:

- Signage to identify parking locations;

- Designated vehicle speeds of **(insert speed)** Kph around offices, workshops and fixed plant structures;
- Have clearly defined parking areas **(sun flower yellow line marking paint on concrete or bitumen)**;
- Clearly established walkways which are 600m wide and delineated and separated from road ways and thoroughfares;
- Access doors to enter and exit buildings;
- Signage stating “beware of forklift” on workshop buildings and confined spaces; and
- Signage stating “sound horn prior to entering or exiting” located on workshop / confined areas vehicle access openings.

11.3 Pedestrian Crossings

Crossing shall:

- Be used in areas with high levels of pedestrian traffic;
- Be signed posted to clearly identify where pedestrians must cross road ways;
- Have clearly defined crossing areas **(sun flower yellow line marking paint on concrete or bitumen only)**;
- Have signage on road ways **(insert distance)** prior to the crossing, to alert approaching drivers and operators; and
- Be sign posted with ‘give way’ on the left hand side of the road where the crossing begins to alert the drivers and operators.

11.4 Weighbridges

Road trucks drivers and visitors shall be instructed by signage to make contact with site supervision by telephone **(insert number)** or two way radio **(insert channel)** and wait for further instructions.

All road truck drivers shall wet their loads with the spray bar. **(where installed)**

Signage shall be positioned prior to the entry of the weighbridge which instructs drivers where they must “stop and wait” until weighbridge is clear.

Only road trucks fitted with fully automated tarping mechanisms shall tarp their loads on the weighbridge.

Weighbridge operators shall ensure:

- Truck drivers do not climb their trucks and loads while positioned on the weighbridge;
- All road trucks are not over their tare weight and loads are tarped prior to leaving the site; and
- Tip off areas shall be allocated for road trucks to tip off excess material when over tare weight.

11.5 Tarping Areas (Securing Loads)

All loads shall be tarped prior to leaving **(insert company name)** site. Designated tarping area shall be provided for truck drivers to safely tarp (secure) their truck and trailer loads.

Areas shall have earthen mounds delineating the area from main traffic roads and signed posted with “tarping area”. The risk controls for tarping include:

- All road trucks shall have cabin or ground-activated tarping mechanisms for truck and trailer

bodies;

- Any viewing platforms made and or installed at designated tarping areas shall comply with AS 1657:2013 - *Fixed Platforms, Walkways, Stairways and Ladders – Design, Construction and Installation*; and
- Signage shall be displayed at the where platforms are installed stating that personnel are prohibited from accessing (climbing) the truck from the platform.

11.6 Prevailing Weather and Environmental Conditions

All drivers and operators of light vehicles, mobile plant and road trucks shall reduce the operating speed by **(insert speed)** Kph and drive to environmental conditions during rain events.

All roadways and mobile plant operating areas shall be inspected daily and more frequently during and after heavy rain events for any signs of cracking, sinking or slippage.

All vehicles operations shall cease immediately when the vehicles steering, braking or accelerating operations become uncontrolled during rain events or when instructed by site supervision.

In addition to the above, light vehicles, mobile plant and road trucks shall also cease operations when the following occurs during rain events:

- Poor visibility during rain events or dry weather;
- Pooled water on roadways; and
- Deep erosion on roadways and work surfaces which could cause a driving hazard.

The operator or drivers shall park the vehicle in safe area on level ground and contact site supervision and wait for instructions.

Note: *When cracking, sinking or slippage occurs on road surfaces, benches and levels, waste dumps and stockpiles (insert name) and site personnel shall be informed and the area shall be sectioned off and inspected.*

11.7 Road Design, Construction and Maintenance

Road design and construction shall be undertaken in the following manner:

- The design and construction of roadways shall take into account any in situ overhead power lines and structures and design around them where possible;
- For two-way traffic roads, the width shall be a minimum of 3.0 times the width of the widest vehicle operating on the site for straight sections of the roads;
- For bends and corners, the road width shall be a minimum of 4.0 the width of the widest vehicle;
- For one-way traffic roads, the width shall be a minimum of 1.5 times the width of the widest vehicle;
- Where this is not possible, additional controls (passing bays, reduced speed limits, additional safety berms and signage and radio communication procedures) shall be implemented;
- All roadways shall be designed and constructed (where possible) to eliminate gradients steeper than 1:10;
- Roads shall be made of suitable layered material which provides good compaction reduces water penetration and the likelihood of cracking, sinking or slippage;
- Road surfaces shall be formed and or sheeted with suitable material which provides a firm surface and adequate traction for all vehicles to safely operate upon;
- Roads shall be designed with cambers of no greater than 2 degrees;

- Corners shall be designed with cross-falls of no greater than 5 degrees; and
- Drainage provisions shall be installed on all roadways, levels and benches to remove pooled water from rain events.

Additionally:

- Where roads are divided by a centre berm, a 'Keep Left' or 'Keep Right' sign shall be mounted at the beginning of the centre berm dividing the road; and
- Hazard warning signage shall be displayed a minimum 30 metres prior to the centre berm dividing the road to alert the driver and operators of upcoming road conditions.

Note: *Where passing bays are used, a procedure shall be in place detailing the road rules, and clear signage explaining right of way shall be displayed.*

The following road maintenance activities shall be conducted on **(insert company name)** roadways within site (e.g. haul roads, benches, levels and access roads):

- Road ways shall be regularly watered and graded / maintained to control dust generated from vehicle traffic on site;
- Major on-site road maintenance shall occur outside of production hours, where possible;
- All workers shall be notified (e.g. toolbox and prestart meetings, Ultra-high frequency / Very-high frequency radio communication) when on-site road maintenance is conducted;
- Maintenance on roadways shall be coned or flagged off with signage for roadworks and reduced speed limits in place to alert all traffic;
- Road surfaces shall be maintained by in-filling and resurfacing, where required;
- Obstacles and debris shall be cleared from the road at all times;
- Roadways shall be inspected for any cracking, sinking or slippages, including during and after periods of heavy rain events;
- More frequent inspections and maintenance shall be given during periods of heavy rain events; and
- Site roadway inspections shall be completed at a minimum, quarterly using the **(insert document name)**.

11.8 Signage

All traffic management signage shall comply with the following Australian standards:

- *AS 1744:1975 - Standard Alphabets for Road Signs*; and
- *AS/NZS 1906.1:2007 - Retro-reflective materials and devices for road traffic control purposes – Retro-reflective sheeting.*

Signage shall be:

- Clearly visible and legible at all times and identify traffic management controls and or site risks;
- Positioned so they do not create a hazard;
- A minimum 2 metres from the edges of the road or where safety berms are in place, either on top or on the outer side of the berm (signage must still be visible by all vehicles);
- Positioned at all entry points to the site and haul road, instructing vehicle operators give way to heavy mobile plant and trucks; and
- Instruct haul truck operators and road truck drivers to use the retarder / exhaust brake on sloped roadways and lower gear.

Signage shall be installed on the entrance to the site stating:

- Site entry speed limit;
- All personnel entering the site must report to the weighbridge / site office;
- Radio communication channel (*insert Ultra-high frequency / Very-high frequency 00*);
- Turn on flashing lights when entering; and
- Turn off their flashing light when leaving. (on inside of gate)

Site speed limits shall be clearly signposted for all following operating areas:

- Site entry and exit (*insert speed limit*);
- Access roads (*insert speed limit*);
- Car parking areas (*insert speed limit*);
- Go - line areas (*insert speed limit*);
- Haul road (*insert speed limit*);
- Benches and Levels (*insert speed limit*);
- Run off mine pads stockpiles and waste dumps (*insert speed limit*); and
- Weighbridge, office and workshops (*insert speed limit*).

11.9 Sight and Stopping Distances

All risk controls implemented shall ensure that separation (sight) distances are greater than the stopping distance of the largest vehicle on site.

- Lines of sight shall be maintained at all times for corners, intersections and signage;
- Stockpiles shall be strategically placed so as not to restrict the vision of vehicle drivers and operators from corner positions, intersections, signage locations and other traffic on site;
- Vegetation shall be cleared regularly to ensure corners, intersections and signage are visible;
- Signage shall be cleaned on a regular basis to ensure it remains legible;
- Convex mirrors shall be used around buildings where there are blind corners; and
- Warning signage identifying the road hazard shall be installed 20 metres prior to blind corners, intersections and crests.

11.10 Edge Protection (Safety Berms)

Edge protection shall be implemented on all roadways (haul access, bench and levels, stockpiles, waste dumps and run off mine pads) where there is a possible risk of vehicles and mobile plant rolling over the edges of embankments, faces and drop offs.

Safety berms shall be:

- 2 metres in from edges of embankments, drop offs or faces where possible;
- At least the axel height of the largest tyred vehicle operating on the site;
- Constructed out of a combined of suitable material i.e. fines and solid rock;
- Be of a consistent triangular shape, kept free from erosion and regularly inspected and maintained; and
- Delineation markers where operations run at night times.

Note: Where it is impractical to use edge protection, alternative controls such as escape ramps and center berms, shall be considered refer to - 11.13 runaway vehicle provisions.

11.11 Intersections, Crests and Corners

All intersections, crests, corners on roads where mobile plant operate, shall be eliminated, where reasonably practicable. Where they cannot be eliminated, the road shall be clearly signposted (e.g. reduced speed limits, warning signs upon approaching the intersection, crest or corner, right of way rules, give way or stop rules).

All traffic shall have clear visibility in all directions when entering roadways. 4 way intersections shall be eliminated or off set to reduce the possibility of driving straight through intersections.

Where visibility is restricted on crests, rises and corners, the roadway shall be divided (where practicable) to provide separation for vehicles (e.g. a centre berm and guidance posts).

Corners shall have a minimum of, 1.5m safety berms and be made of a “more solid” construction to prevent vehicles and mobile plant from punching through berms.

11.12 Run Off Mine Pads, Waste Dumps and Stockpiles

All run off mine (ROM) pads, waste dumps and stockpiles locations shall:

- Take into account any in situ overhead power lines and structures and design around them where possible;
- Have windrows that are at least the axel height of the largest vehicle tipping where there is a risk of mobile plant rolling over the edges of embankments when inspecting or reversing to tip off material or to push off materials;
- Be built on an incline to reduce the risk of runaway vehicles and mobile plant free rolling over edges of embankments; and
- Be designed and formed to ensure there is adequate room to safely maneuver the vehicle or mobile plant on top of pad, dump or stockpile.

11.13 Runaway Vehicle Provisions in Operational Areas

(insert company name) shall implement runaway vehicle provisions in operational areas where there is the possibility for vehicles to run away on steep grades when operating close to their design limits, or experience and history shows there is a problem keeping vehicles under control.

The two types of runaway provisions which shall be used are escape ramps or centre berms.

Escape ramps shall be:

- Attached to the haul road and designed so the vehicle operator can safely steer the vehicle into the escape ramp;
- Wide enough to accommodate the largest tyred vehicle on site and of sufficient length to allow vehicle time for it to slow and stop; and
- Constructed with high rolling resistance material which is not easily compacted.

Centre berms shall:

- Accommodate the nature and size of the vehicle that will need to drive onto or straddle the centre berm;
- Be constructed of material that provides sufficient drag on the vehicle to slow and stop its momentum and limits damage to the underside of the vehicle; and
- Positioned so a vehicle has only limited time to pick up speed before it straddles the berm.

11.14 High Wall Drop Zones

High walls are often located alongside haul roads, levels and benches. These present a hazard in the form of a rock fall or ground collapse. High walls can become less stable over time due to factors such as weathering and effects of water.

High walls shall be subject to regular inspection for evidence of rock falls, open joints, water damage, or overhangs.

Unstable material shall be removed where possible or, where this is not practicable, access to the area shall be restricted.

Earthen mound barricading shall be used to prevent entry into restricted areas; the earthen mound shall be positioned to stop rolling rocks striking personnel or plant and equipment. Positioning of barricades shall take into account the height of the face and how far the rocks out may fall and bounce from the base of the wall.

11.15 Over Head Power Lines and Structures

(insert company name) shall eliminate or control the risk of contact with power lines and overhead structures by burying and signing the locations of power lines or relocating parking and operating areas away from power lines and overhead structures.

Where this cannot be achieved, signage will clearly identify locations, height restriction of overhead structures and voltage of power lines.

11.16 Isolation / Holding Bays

Where there is a possible risk of mobile plant coming into contact with overhead power lines or heat building up in the tyres as a result of long-haul roads, a bunded (earthen mound) vehicle / mobile plant isolation bay for tyre explosions shall be in place.

The isolation bay shall have:

- Earthen mounds around three sides of the mobile plant (i.e. back, left and right) and be the height of the largest tyred vehicle on site;
- Be designed to accommodate the largest mobile plant on site;
- Signage stating mobile plant isolation bay;
- Signage stating that the area shall be kept clear for emergencies;
- No-one is allowed to enter this area for 24 hours; and
- Before the expected vehicle is returned to service, the tyres shall be assessed internally by a competent person.

(insert company name) shall include an emergency response for tyre explosions within their Emergency Response Plan **(insert document number)**

11.17 Restricted Access / Exclusion Zones

Pedestrian exclusion zones shall be identified, signposted and workers shall be notified of their existence and location.

Signage shall advise unauthorised vehicles or personnel of no entry to the haul road.

Visitors are not permitted to walk around the stockpiles unless they are accompanied by a worker appointed by the Mine operator.

Workers are not allowed to walk within stockpile areas unless verbal communication (direct or by Ultra-high frequency / Very-high frequency radio) has occurred and response has been received by the drivers and operators of the mobile plant or heavy vehicles operating within that area. This communication shall occur before the personnel enter the exclusion zone.

Customers are not permitted to leave the cabin of their vehicle while parked within the stockpile or sale yard area.

Visitors or workers are not permitted to walk within half the face height at the bottom of a quarry face.

Signage shall be displayed at the following areas prohibiting unauthorised personnel and vehicles entering:

- Run off mine pads, stockpiles and waste dumps, drill pads, blast pads, haul roads, workshops and fixed plant areas.

12. Bodies of Water

Earthen mound barriers or a security fence shall be built or erected within 5 metres of the sloping edge (not water's edge) around the edges of bodies of water (e.g. water holes, ponds, dams or silt ponds) where any light vehicles or mobile plant and equipment operate.

Signs shall be erected around the perimeter and entry points which warn people "danger drowning hazard". The Mine Operator shall ensure that where there are large bodies of water on site, the risks associated with a wall failure on a water hole, pond, dam or silt pond have been carried out by a competent person.

13. Refueling Stations

Refueling station must be constructed in accordance with *AS 1940:2004 – The Storage and Handling of Flammable and Combustible Liquids* and shall have the following controls in place to manage refueling the storage tank, vehicles and mobile plant and equipment:

- The area shall be provided with artificial lighting to ensure the area is well illuminated when refueling before sunrise or after sunset;
- Earthen mounds or physical barriers to prevent vehicle collision with the refueling station and be provided with firefighting equipment; and
- Be appropriately signed for the following fuel stored:
 - o "Danger Combustible Liquid" for diesel, "Danger Flammable Liquid" for petrol, "Danger Flammable Gas" for liquefied petroleum gas (LPG).

(insert company name), shall place witches hats or bollards around the area to warn other drivers and operators of refueling in progress where personnel or plant is at potential risk of being struck by other vehicles when refueling.

14. Information, Instruction and Training

The **(insert company name)** shall ensure:

- All vehicles and mobile plant have been assessed for risks to health and safety and procedures generated for their safe operation;
- Additional procedures are in place for the refueling of vehicles, escorting of vehicles, maintenance of roadways, extreme weather events and emergencies;
- Operators of mobile plant have the appropriate licence or certificate of competency (where required) for the plant;
- Operators of mobile plant have been instructed, trained in the safe operating procedures and operation of the plant and site specific tasks;
- Operators have been assessed and deemed competent and are supervised in their operating duties;
- Key elements of this Traffic Management Plan shall be captured in the site induction process, safe operating procedures and shall be explained to all workers, contractors and visitors via site induction handbook, training and site notices;
- The requirements for crossing or accessing public roads from **(insert company name)** site exit points are managed through the site specific induction, training and assessment, signage and operating procedures for light vehicles, road trucks and mobile plant; and
- Site procedures are in place to manage risks to workers and public and safety.

15. Emergency Procedures

The *(insert company name)* shall have a visitors sign in book located at the *(insert location, e.g.: weighbridge or office area)* to record visitors and contractors who attend the site which shall be used to identify who is on site in the event of an emergency situation. In the event of an emergency evacuation or operators and personnel have been instructed to evacuate the site, drivers and operators shall head to the emergency evacuation assembly point at *(insert location)* and wait for further instructions.

Emergency procedures shall be in place in the event of the following:

- Pedestrian struck by traffic;
- Vehicle collision / rollover and fire; and
- Rescue and retrieval.

16. Site Traffic Management Map – see Appendix A

(insert company name) shall generate a site map identifying the following:

- Entry and exit points to the site;
- Parking areas and buildings and structures;
- Pedestrian crossing areas;
- Haul roads, access roads and one way roads;
- Speed limits for access and haul roads;
- Overhead power lines and structures;
- Crushing / processing plants;
- Pit locations;
- Stockpile and waste dump locations;
- Bodies of water; and
- Explosives storage. (where applicable)

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

Appendix A - Traffic Management Map



Insert Company Logo
Here

Traffic Management Inspection Checklist

Company:		Site		Date		Time	
Inspectors Name:		Assistant 1		Assistant 2			

Instructions for personnel completing this Inspection;

- It is recommended this inspection be completed monthly.
- It is recommended a minimum of 2 persons conduct the inspection, one should be a Health and Safety Representative of the work group (if present at the worksite) or a person qualified or experienced in Work Health and Safety and the other, a member of the workgroup,
- Complete the checklist below by ticking / marking the applicable score (Y, N, N/A) for each item.
- Complete details of non-conformances identified in the space provided.
- Assign a risk score for each non-conformance using the matrix below.
- Complete details including: Name, Date and signature in the space provided.
- Return the completed form to the *(insert role or Department e.g. Area Manager, Safety Department, etc.)* for corrective actions to be assigned.

RISK MATRIX						HIERARCHY OF CONTROL
Likelihood	Consequences					<p>The Hierarchy of Control must be used when determining how risks are going to be Eliminated or Minimised.</p> <p>Start at No. 1 and work down the order.</p> <ol style="list-style-type: none"> Elimination – remove the hazard from the workplace. Substitution – use a different (safer) process, machine or chemical. Isolation - as much as possible, isolate the hazard or hazardous work practice from people. Engineering – install guards on machines, put in barriers around hazards. Administrative controls – use policies, training and signs to warn workers. Personal protective equipment (PPE) – use gloves, glasses, hearing protection etc. <p>Personal protective equipment is always the last option used in the hierarchy of control as a means of protection!</p>
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic	
A - Almost Certain	M	H	E	E	E	
B - Likely	M	H	H	E	E	
C - Possible	L	M	H	H	E	
D - Unlikely	L	L	M	H	H	
E - Rare	L	L	M	H	H	

Traffic Management Inspection Checklist

Risk Matrix Legends			
Rating	Safety	Health	Environment
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
2 Moderate	Medically treated injury. Reversible injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but does not lead to restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence Incident resulting in some site contamination. Medium term recovery impact.
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days.	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.
5 Catastrophic	Fatality. Permanent disabling injuries.	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences

Rating	Descriptor	Description	Suggested Frequency
A	Almost certain	The event is expected to occur	Recurring event during the lifetime of a project/operation, e.g. More than once per month
B	Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project/operation, e.g. At least once per year
C	Possible	The event should occur	Event that may occur during the lifetime of a project/operation e.g. Once in 3 years
D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project/operation e.g. Once in 10 years
E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project/operation, e.g. Once in 15 years

Rating	Definition	Level of Involvement
Extreme	Cease work - No works shall be conducted until controls are implemented to reduce the risk level. Immediate formal risk assessment required.	The most senior person on site (Chief Executive Officer, Managing Director, General Manager) must review and approve risk control measures before allowing work to recommence
High	Corrective action required. Normally permits required to perform work. Safe Work Procedure or Job Hazard Analysis is mandatory	Mine Operator and or Quarry Manager review required
Moderate	Corrective action required. Job Hazard Analysis or Safe Work Procedure required.	Supervisor / Superintendent review required
Low	Corrective action where practical. Take 5 risk assessment required.	Supervisor to manage by routine procedures at operational level

Traffic Management Inspection Checklist

1. ENVIRONMENTAL CONDITIONS						
Is there adequate lighting in areas where pedestrians and traffic interact?						
Is there adequate visibility from lighting in vehicle operating areas before sunrise or after sunset?						
Is there adequate lighting for pedestrian movement before sunrise or after sunset?						
2. PARKING AREAS						
Are parking areas clearly defined and segregated for light vehicles and mobile plant?						
Are controls in place at parking areas to prevent light vehicles and mobile plant rolling away in the event of brake failure? e.g. V-Drains installed, earthen mounds?						
Are car and mobile plant parking areas provided with separate entry and exit points to allow one way traffic flow?						
Are all parking areas on level ground and surfaces free from slip and trip hazards?						
Are there designated parking areas that separate light vehicles and mobile plant around offices, crushing plants and maintenance areas?						
3. ACCESS AND EGRESS						
Are all entrance and exit points to the site clearly sign posted ?						
Do gates at the site entrance and exit areas have reflective signage for visibility at night?						
Are speed limit signs reflective to allow visibility during night time operations?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
Is hazard and warning signage reflective for visibility at night?						
Are there signs and designated walkways in place for pedestrians in and around buildings?						
Are all personnel wearing high-visibility clothing as per site requirements or where sign posted?						
Are pedestrian walkways clearly designated and sign posted from parking areas, in and around offices, buildings and workshops?						
Are operational areas sign posted with "No Unauthorised Access" signage?						
Are visitors restricted from entering operational areas unless escorted by site personnel?						
Are there separate entrances into buildings for pedestrians, light vehicles and mobile plant?						
Is there signage to identify overhead conveyors, steep gradients, bridges and drains ?						
Are all roadways clearly signposted with traffic control requirements? e.g. site speed limits, stop signs, one way, keep left; give way as per roads rules under the road traffic act?						
Are heavy vehicle waiting, tarping and clean off areas signposted?						
Is signage clearly visible on site when travelling in light vehicles? e.g. Not blocked by vegetation, stockpiles or materials?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
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4. SPEED LIMITS

Are there designated speed limits for parking areas, offices, weighbridge and workshop areas?						
Are there designated speed limits for primary and secondary roads? e.g. Side and haul roads						
Are there designated speed limits around crushing plants and Run Of Mine pads?						
Are there designated speed limits for benches and levels, stockpiles and waste dumps?						

5. SURFACES

Are road crowns dispersing water to the edges of the roadways?						
Are cross falls on corners dispersing water to inside edge of roadways?						
Are all corners on levelled ground or provided with a positive camber (no negative cambers)?						
Are all roadways, benches and levels and waste dumps provided with drainage to prevent water pooling?						
Are walkways and surfaces where pedestrian access and egress free from slip / trip hazards?						
Are roadways where traffic operate free from hazards? (Assess road conditions)						
Are workshop and office roadways, parking and floor surfaces areas free of stored materials, oil spills and rubbish?						
Is there a maintenance program in place for regular inspection, maintenance and repairs to pathways, roadways, signs etc.?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
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6. EDGE PROTECTION AND RUNAWAY PROVISIONS

Are safety banks in place on all edges of haul roads and embankments?						
Is access into areas where there are unprotected edges (no safety banks) on embankments being effectively controlled to prevent entry? e.g. blocked off						
Are safety banks a minimum of axel height of the largest vehicle and located at least 2m from the edges of embankments?						
Are safety banks made of suitable material to slow and stop a vehicle						
Are safety banks and windrows of a consistent form and free from erosion?						
Where safety berms are implemented on a slope to slow runaway mobile plant, are they of a consistent form and free from erosion?						

WHERE A RISK ASSESSMENT HAS IDENTIFIED VEHICLE RUNAWAY PROVISIONS ARE REQUIRED, ANSWER THE FOLLOWING QUESTIONS BELOW.

Are escape ramps wide enough to accommodate the largest vehicle on site?						
Are the escape ramps easy to access in the event of a runaway emergency?						
Is the material used in the escape ramp providing high rolling resistance and sinking capabilities to stop vehicles?						
Are escape ramp(s) of a suitable length to allow the vehicle time to stop in a runaway emergency?						

7. TRAFFIC MOVEMENT

Is traffic entering and leaving the site in a safe manner?						
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Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
Have light vehicle and mobile plant right of way rules and other traffic controls been established and clearly communicated through signage?						
Are one-way roads signposted and clearly communicated to all users?						
Can light vehicle and mobile plant operators communicate clearly with each other? e.g. via VHF / UHF radio						
Are there provisions to manage high traffic volumes on site? e.g. waiting, parking, tarping areas, holding zones						
Are one-way roads 1.5 times the width of the largest tyred vehicle accessing the road?						
Are two-way roads 3 times the width of the largest tyred vehicles passing side by side?						
8. LIGHT VEHICLES AND MOBILE PLANT						
Are light vehicles and mobile plant regularly inspected and serviced ? e.g. pre-start inspections conducted, scheduled maintenance servicing plans?						
Are light vehicles and or mobile plant clearly visible to pedestrians and other operators? e.g. vehicle mine flags, hi-visibility reflective strips, amber flashing light, lights on						
Are the Ground Engaging Tools (boom or bucket) on all load-shifting equipment lowered when travelling or grounded when parked up?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
Is there sufficient room for mobile plant and heavy vehicles to load out from stockpiling / sales areas?						
Are operational areas clear of personnel where light vehicles, heavy vehicles and mobile plant operate?						
Are mobile plant operating on slopes or uneven ground that may cause a loss of control or stability?						
Are there systems in place to ensure operators can be contacted immediately in the event of a site emergency?						
Do light vehicles and mobile plant maintain a minimum clearance between vehicles when travelling on roads as per operating procedures or traffic management plan? e.g. 30m – 50m distance exclusion zone						
Do operators maintain a 10m cleared exclusion zone between the mobile plant they are operating and from those who give them instructions?						
Are light vehicles and mobile plant isolated, locked and fundamentally stable overnight?						
9. HIGH RISK AREAS						
Is there a procedure in place to manage heavy wet weather conditions, e.g. pooled water or poor visibility? e.g. dust, pooled water, fog, rain, heat, slippery conditions?						
Are vegetation and materials managed to provide a clear view of intersections and signage at all times?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
Are blind corners around buildings fitted with convex mirrors to identify on-coming traffic or other personnel?						
Have risk controls been implemented to manage blind spots where they cannot be eliminated?						
Are load-bearing structures and power poles protected with earthen mounds or barriers where there is a risk of contact?						
Is there signage to identify clearance distances between overhead structures and power lines?						
Is there signage stating "Stop" at railway line crossings? (If applicable)						
Is there signage on the side access tracks of railway lines stating "maintain 3m clearance from railway tracks at all times"? <i>Rail Safety National Law Act 2012 (SA)</i>						
Have risk controls been developed for light vehicles and mobile plant to operate at night ?						
10. DESIGNATED / RESTRICTED / UNAUTHORISED AREAS						
Is there signed designated waiting, tarping and clean off areas for heavy vehicles (road trucks)?						
Are there clearly defined loading / unloading areas? e.g. for deliveries, couriers, etc.						
Are designated loading / unloading areas provided with stable surfaces?						
Is there a designated refuelling area allocated at the site?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
Are refuelling areas and battery recharge stations protected by physical barriers?						
11. INSTRUCTION AND TRAINING						
Are all drivers / operators instructed and trained in the site traffic management requirements?						
Have all mobile plant operators been deemed competent to operate the relevant mobile plant on specific tasks (documented evidence of verification of competency (VOC) is required)						
Do all personnel receive instructions and training on safe operating procedures and requirements for working in weighbridge, workshop and operational areas?						
Are visitors and all drivers (courier/sales / delivery) instructed about the site rules?						
Does the site induction cover light vehicle and mobile plant requirements?						
12. SYSTEMS						
Is there a documented Traffic Management Plan in place for the site?						
Are there procedures in place for the operation and refuelling of all relevant light vehicles and mobile plant?						
Is the Traffic Management Plan regularly reviewed ?						
Is there a dust and water management plan in place on site?						

Traffic Management Inspection Checklist

Inspection item:	Y	N	N/A	Risk level	Details of non-conformance	Photo (if required)
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13. SIGN OFF

Person conducting Inspection

Signature

Date of Report

14. CORRECTIVE ACTION PLAN

Action No	Action required	Responsibility	Completion Date	Review Date
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Insert Company Logo
Here

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

PRINCIPAL MINING HAZARD: ROADS AND OTHER VEHICLE OPERATING AREAS		Document Completed by	
Description of Activities:	<input type="text"/>		Name: <input type="text"/>
Location of Activities:	<input type="text"/>		Title: <input type="text"/>
Personnel Exposed:	<input type="text"/>		Worker(s) Consulted: <input type="text"/>
			Date Conducted: <input type="text"/>

RISK MATRIX						HIERARCHY OF CONTROL
Likelihood	Consequences					<p>The Hierarchy of Control must be used when determining how risks are going to be Eliminated or Minimised.</p> <p>Start at No. 1 and work down the order.</p> <ol style="list-style-type: none"> Elimination – remove the hazard from the workplace Substitution – use a different (safer) process, machine or chemical Isolation - as much as possible, isolate the hazard or hazardous work practice from people. Engineering – install guards on machines, put in barriers around hazards Administrative controls – use policies, training and signs to warn workers Personal protective equipment (PPE) – use gloves, glasses, hearing protection etc. <p>Personal protective equipment is always the last option used in the hierarchy of control as a means of protection!</p>
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D - Unlikely	L	L	M	H	H	
E - Rare	L	L	M	H	H	

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Risk Matrix Legends			
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1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
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Rating	Definition	Level of Involvement
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Moderate	Corrective action required. Job Hazard Analysis or Safe Work Procedure required.	Supervisor / Superintendent review required
Low	Corrective action where practical. Take 5 risk assessment required	Supervisor to manage by routine procedures at operational level

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
PREVAILING WEATHER AND ENVIRONMENTAL CONDITIONS - Briefly describe the Prevailing weather and environmental conditions						
Steering, braking or accelerating in muddy and slippery road conditions on roadways, stockpiles and steep gradients during heavy wet weather? Note! Assessment should take into account when mobile plant is fully loaded and empty	<input type="checkbox"/>	<input type="checkbox"/>				
Poor visibility during heavy wet weather? e.g. Heavy rain	<input type="checkbox"/>	<input type="checkbox"/>				
Poor visibility during dry weather conditions? e.g. dust generated from traffic movement	<input type="checkbox"/>	<input type="checkbox"/>				
Traffic speed during heavy wet or dry weather?	<input type="checkbox"/>	<input type="checkbox"/>				
Driving through pooled water on roadways during heavy wet weather	<input type="checkbox"/>	<input type="checkbox"/>				
Erosion on road surfaces during heavy wet weather?	<input type="checkbox"/>	<input type="checkbox"/>				
PARKING AREAS - Briefly describe the Parking areas						
Unattended vehicles and mobile plant rolling away from parking areas? e.g. Are V-drains or earthen mounds present at go-lines?	<input type="checkbox"/>	<input type="checkbox"/>				
Uncontrolled movement while accessing or egressing from mobile plant and vehicles e.g. are mobile plant and vehicles fundamentally stable (on flat level ground) in V drains and vehicle shut down procedures implemented	<input type="checkbox"/>	<input type="checkbox"/>				
Uneven and downward sloped surfaces at parking areas?	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
The type of material used to sheet the surface of parking areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Muddy and slippery surface conditions of parking areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Layout of parking areas? e.g. No standardised design, room to manouver	<input type="checkbox"/>	<input type="checkbox"/>				
Personnel being struck by vehicle traffic in parking areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Personnel being struck by vehicle traffic when accessing weighbridges, offices, workshop or crushing plant areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Vehicle collision in or around parking areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Inadequate signage to indicate parking and restricted access areas?	<input type="checkbox"/>	<input type="checkbox"/>				
No separate parking areas for light and heavy vehicles?	<input type="checkbox"/>	<input type="checkbox"/>				

ROADS DESIGN, CONSTRUCTION AND MAINTENANCE - Briefly describe the Primary Roads design, construction and maintenance

Water penetrating the sub base material causing structural damage / road failure? e.g. softening, sinking or collapsing	<input type="checkbox"/>	<input type="checkbox"/>				
Loose material on road surfaces when steering, braking or accelerating?	<input type="checkbox"/>	<input type="checkbox"/>				
Road surface material being projected outwards by traffic?	<input type="checkbox"/>	<input type="checkbox"/>				
Road crowns not dispersing water to the roads edges?	<input type="checkbox"/>	<input type="checkbox"/>				
Road cross falls on corners not dispersing water to the roads edge?	<input type="checkbox"/>	<input type="checkbox"/>				
Negative cambers on corners?	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
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ROADS DESIGN, CONSTRUCTION AND MAINTENANCE - Briefly describe the Primary Roads design, construction and maintenance

Corners located at the bottom of declines?

☐
☐

ROAD WIDTHS AND GRADIENTS - Briefly describe the road widths and gradients

Single lane roads?
e.g. accessible from both directions at the same time?

☐
☐

Narrow single lane road widths?
e.g. should be at least 1.5 times the width of the largest vehicle that travels on the road

☐
☐

Narrow two way road lane widths?
e.g. should be at least 3.0 times the width of the largest vehicle that travels on the road.

☐
☐

Operating on steep inclines and declines?
e.g. speed, braking, stalling
Note!
Gradients should be a maximum of 1 in 10 ratios.
For every 10m, the gradient should rise or lower 1m

☐
☐

Driving across steep inclines and declines?

☐
☐

SIGHT AND STOPPING DISTANCE - Briefly describe the sight and stopping distance

Restricted vision on haul roads, access roads and ROM pads from crests and sweeping corners?

☐
☐

Restricted vision on haul roads, access roads and ROM pads from blind corners and sharp curves?

☐
☐

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
Restricted vision on haul roads, access roads and ROM pads from vegetation, stockpile and waste dump locations?	<input type="checkbox"/>	<input type="checkbox"/>				
Reduced visibility during nighttime operations?	<input type="checkbox"/>	<input type="checkbox"/>				
Poor illumination of traffic during nighttime operations?	<input type="checkbox"/>	<input type="checkbox"/>				
Other lighting sources from onsite or adjacent facilities restricting operator's visibility?	<input type="checkbox"/>	<input type="checkbox"/>				
Travelling to close to other vehicles?	<input type="checkbox"/>	<input type="checkbox"/>				
Traffic speed when attempting to negotiate corners, intersections and or entry and exit points?	<input type="checkbox"/>	<input type="checkbox"/>				
Response time of the operator due to possible fatigue?	<input type="checkbox"/>	<input type="checkbox"/>				

EDGE PROTECTION - Briefly describe the edge protection

Unprotected embankments on road ways, benches, levels, waste dumps, stockpiles and ROM pads?	<input type="checkbox"/>	<input type="checkbox"/>				
The type of material used to form safety berms? e.g. Will the berm be able to hold / stop the vehicle?	<input type="checkbox"/>	<input type="checkbox"/>				
Poorly maintained safety berms? e.g. Should be at least the axel height of the tyre of the largest vehicle on site and of a consistent form	<input type="checkbox"/>	<input type="checkbox"/>				
Safety berms being too close to the edges of embankments? e.g. Should be at least 2 meters away from edges	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
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INTERSECTIONS - Briefly describe the Intersections

Vegetation growth, safety berms, crests and corners reducing visibility? e.g. Insufficient reaction times to stop vehicles	<input type="checkbox"/>	<input type="checkbox"/>				
Vegetation growth or safety berms restricting visibility of signage	<input type="checkbox"/>	<input type="checkbox"/>				
Narrow intersections widths?	<input type="checkbox"/>	<input type="checkbox"/>				
No traffic islands to clearly split and delineate traffic?	<input type="checkbox"/>	<input type="checkbox"/>				
Merging traffic lanes? e.g. traffic not meeting at clearly defined intersections.	<input type="checkbox"/>	<input type="checkbox"/>				
Operators driving straight through 4 way intersections?	<input type="checkbox"/>	<input type="checkbox"/>				
Vehicle and mobile plant collision due to operators not understanding who should give way? e.g. right of way rules	<input type="checkbox"/>	<input type="checkbox"/>				
No clear communication rules between pedestrians, light vehicles and mobile plant?	<input type="checkbox"/>	<input type="checkbox"/>				

OVERHEAD POWER LINES AND STRUCTURES - Briefly describe any Overhead power lines and structures

Contact with power lines and overhead structures while vehicles and mobile plant are driving on roadways?	<input type="checkbox"/>	<input type="checkbox"/>				
Contact with power lines and overhead structures while road trucks and mobile plant are tipping off at stockpiles and waste dumps?	<input type="checkbox"/>	<input type="checkbox"/>				
Contact with power lines and overhead structures while tipping off at Rom Pads?	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
Contact with power lines and overhead structures when traffic is entering, parking or exiting parking areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Contact with power lines and overhead structures when traffic is travelling around fixed or mobile crushing plant areas?	<input type="checkbox"/>	<input type="checkbox"/>				
Contact with power lines and overhead structures as a result access into restricted areas?	<input type="checkbox"/>	<input type="checkbox"/>				
No warning signage to clearly state no unauthorised access and or height restrictions?	<input type="checkbox"/>	<input type="checkbox"/>				

ROM PADS, WASTE DUMPS AND STOCKPILES - Briefly describe the ROM pads, waste dumps and stockpiles

Reversing over unprotected edges on ROM pads, waste dumps and stockpiles when tipping off? e.g. windrows should be at least the axel height of the tyre of the largest vehicle on site	<input type="checkbox"/>	<input type="checkbox"/>				
Mobile plant reversing down ROM pads, waste dumps and stockpiles to tip or push off material?	<input type="checkbox"/>	<input type="checkbox"/>				
Cracking, sinking, slippage on waste dumps and stockpiles caused by heavy wet weather?	<input type="checkbox"/>	<input type="checkbox"/>				
Available room to safely maneuver the vehicle or mobile plant on top of ROM pads, waste dumps and stockpiles?	<input type="checkbox"/>	<input type="checkbox"/>				
Waste dumps and stockpile sizes restricting the vision of operators?	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
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OFFICES, WORKSHOPS AND FIXED PLANT AREAS - Briefly describe the Offices, Workshops and fixed plant areas

Structures on the site being struck by mobile plant and vehicles?	<input type="checkbox"/>	<input type="checkbox"/>				
Structures being subject to Flooding?	<input type="checkbox"/>	<input type="checkbox"/>				
Ground collapse onto structures?	<input type="checkbox"/>	<input type="checkbox"/>				
No designated parking areas around the offices, workshop and fixed plant structures?	<input type="checkbox"/>	<input type="checkbox"/>				
No safe access and egress around offices, workshop and fixed plant structures?	<input type="checkbox"/>	<input type="checkbox"/>				
Being struck by forklift and vehicles entering and leaving workshop?	<input type="checkbox"/>	<input type="checkbox"/>				
No physical barriers or bollards to designate walkways and pedestrian crossings?	<input type="checkbox"/>	<input type="checkbox"/>				
No designated vehicle speeds around offices, workshops and fixed plant structures?	<input type="checkbox"/>	<input type="checkbox"/>				

RUNAWAY VEHICLE PROVISIONS IN OPERATIONAL AREAS - Briefly describe the runaway vehicle provisions (where applicable)

The vehicle or mobile plant unable to safely negotiate the escape ramp coming off the haul road?	<input type="checkbox"/>	<input type="checkbox"/>				
The size and length of the escape ramp not being adequate to stop the runaway vehicle or mobile plant? Note! Take into account size and expected speed of a runaway vehicle or mobile plant	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
The construction material used for the escape ramp? e.g. Does not offer a high rolling resistance and or compacts.	<input type="checkbox"/>	<input type="checkbox"/>				
The materials used for the center berms do not provide sufficient drag and bring the vehicle or mobile plant to a stop?	<input type="checkbox"/>	<input type="checkbox"/>				
The materials used for the center berms do not limit damage to the underside of the vehicle or mobile plant? Note! Center berms should not be made from shot rock	<input type="checkbox"/>	<input type="checkbox"/>				
The positioning of center berm does not allow a vehicle to straddle and slow the momentum?	<input type="checkbox"/>	<input type="checkbox"/>				

RESTRICTED ACCESS / EXCLUSION ZONES - Briefly describe the locations

Unauthorised persons or vehicles accessing ROM pads?	<input type="checkbox"/>	<input type="checkbox"/>				
Unauthorised persons or vehicles accessing stockpiles and waste dumps?	<input type="checkbox"/>	<input type="checkbox"/>				
Unauthorised persons or vehicles accessing drill pads?	<input type="checkbox"/>	<input type="checkbox"/>				
Unauthorised persons or vehicles accessing blast pads?	<input type="checkbox"/>	<input type="checkbox"/>				
Unauthorised persons or vehicles accessing haul roads?	<input type="checkbox"/>	<input type="checkbox"/>				
Unauthorised persons or vehicles accessing workshops and plant areas?	<input type="checkbox"/>	<input type="checkbox"/>				
No procedures and systems for managing access roads and other operating areas during production activities?	<input type="checkbox"/>	<input type="checkbox"/>				
No procedures and systems for escorting vehicles, maintenance on haul roads, weather events or during emergencies?	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
HIGHWALL DROP ZONES - Briefly describe the locations of high wall drop zones						
Unstable materials on high walls e.g. open joints or overhangs	<input type="checkbox"/>	<input type="checkbox"/>				
Being struck by rock falls or face collapse from high walls e.g. no catchment bunds to contain rock falls?	<input type="checkbox"/>	<input type="checkbox"/>				
High walls being weathered from the effects of water over time?	<input type="checkbox"/>	<input type="checkbox"/>				
VEHICLE SELECTION - Briefly describe the vehicles and mobile plant						
No pre-purchase risk assessment for selection and suitability of the light vehicles and mobile plant?	<input type="checkbox"/>	<input type="checkbox"/>				
The design specifications and capabilities of the vehicles and mobile plant operating on site?	<input type="checkbox"/>	<input type="checkbox"/>				
No documented training and assessment program for operators to determine competency?	<input type="checkbox"/>	<input type="checkbox"/>				
No documented procedures and standard work instructions for pre-start inspections and operation of the light vehicles and mobile plant?	<input type="checkbox"/>	<input type="checkbox"/>				
No documented inspection and maintenance program for light vehicles and mobile plant?	<input type="checkbox"/>	<input type="checkbox"/>				
INFORMATION, INSTRUCTION AND TRAINING - Briefly describe the information, instruction and training processes in place						
No documented induction process which identifies traffic management requirements on site?	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

Is there a possibility of injury or damage due to:	Y	N	Describe how and when injury or damage could occur	Risk Level	Describe any controls or actions to eliminate or minimise the risk of injury or damage	Revised Risk Level
INFORMATION, INSTRUCTION AND TRAINING - Briefly describe the information, instruction and training processes in place						
No documented training procedures which identifies traffic management requirements on site?	<input type="checkbox"/>	<input type="checkbox"/>				
No documented systems or procedures in place to provide clear communication requirements when operating of the light vehicles and mobile plant?	<input type="checkbox"/>	<input type="checkbox"/>				
No documented emergency procedures in the event traffic emergencies e.g. Fire, explosion, rollover, collision, tyre blowout, stuck by a vehicle, brake failure, steering failure etc...	<input type="checkbox"/>	<input type="checkbox"/>				
No documented procedures to manage contractors and visitors on site?	<input type="checkbox"/>	<input type="checkbox"/>				
No sign in book located at the site office to identify contractors and visitors on site	<input type="checkbox"/>	<input type="checkbox"/>				
No documented site map?	<input type="checkbox"/>	<input type="checkbox"/>				
PRIOR HISTORY OF INCIDENTS RELATED TO VEHICLES AND OTHER OPERATING AREAS						
A history of any incidents / near misses involving pedestrians and mobile plant / vehicles which have occurred?	<input type="checkbox"/>	<input type="checkbox"/>				
	<input type="checkbox"/>	<input type="checkbox"/>				
	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

RISKS ASSOCIATED WITH THE INTERACTION OF OTHER PRINCIPAL MINING HAZARDS						
Ground or strata instability?	<input type="checkbox"/>	<input type="checkbox"/>				
Inundation and inrush?	<input type="checkbox"/>	<input type="checkbox"/>				
Mines shaft and winding operations?	<input type="checkbox"/>	<input type="checkbox"/>				
Air quality, dust and other airborne contaminates?	<input type="checkbox"/>	<input type="checkbox"/>				
Fire and explosion?	<input type="checkbox"/>	<input type="checkbox"/>				
Gas outbursts?	<input type="checkbox"/>	<input type="checkbox"/>				
Spontaneous combustion	<input type="checkbox"/>	<input type="checkbox"/>				
	<input type="checkbox"/>	<input type="checkbox"/>				
	<input type="checkbox"/>	<input type="checkbox"/>				

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

CORRECTIVE ACTION PLAN					
<ul style="list-style-type: none"> • Safe Operating Procedures (SOP): 					
Recommendations on Methods for Ensuring Safe Work					
Where a Safe Operating Work is developed, this Risk Assessment needs to be referenced within the document.					
Action Plan					
Action No	Action required	Risk Level	Responsibility	Completion Date	Review Date
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Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

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Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

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5				5			

Approved for Issue			
Rev No.	Name	Signature	Date
1			
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3			
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5			

Principal Mining Hazard Risk Assessment Checklist for Roads and Other Vehicle Operating Areas

TRAINING REGISTER				
Workers Name	Occupation	Date	Assess by	Position



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Fitness for Work Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

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Fitness For Work Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on how to effectively manage the risks to health and safety associated with Fitness For Work (FFW).

Forward

Fitness For Work means that an individual is in a state (physical, mental and emotional) where the individual is able to perform assigned tasks competently and in a manner which does not endanger the health and safety of themselves or others.

An individual's Fitness For Work may be affected for a variety of reasons, including the adverse effects of medical conditions, fatigue, stress, alcohol or other drugs, and an individual's emotional state. These factors can lead to work performance and behavioural issues and may lead to a higher likelihood of workplace incidents.

Under the *Work Health and Safety Regulations 2012* (SA), mine operators have a legislative obligation to manage the risks to health and safety associated with Fitness For Work and addresses them through a systematic risk management process.

The strategy adopted by your organisation must ensure workplace hazards and risks associated with Fitness For Work are eliminated or reduced, as far as practicable. This may include a range of initiatives to deal with the particular hazards and risks specific to your workplace.

The aim of managing Fitness For Work is to:

- Provide a clear outline of what is deemed an acceptable physical, mental and emotional condition for workers to present for work;
- Establish controls for fatigue;
- Establish systems to identify if persons are affected by alcohol or other drugs;
- Implement policies and procedures to manage workers that are potentially affected by alcohol or other drugs; and
- Ensure anyone adversely affected by fatigue, stress, medical conditions, mental health, alcohol or other drugs are provided with appropriate support.

Workers and Health and Safety Representatives (where they exist), must be consulted on health and safety matters, such as the development of any initiatives to deal with Fitness For Work matters. Consideration may also be given to consulting relevant employer and employee organisations and persons with relevant expertise.

1. Legislative Requirements

As stated in the MAQOHSC Work Health and Safety Roles and Responsibilities Guide, all persons in the workplace have “duties” under the *Work Health and Safety Act 2012* (SA) and the *Work Health and Safety Regulations 2012* (SA) to ensure the health and safety of workers caused to be engaged.

1.1. PCBUs / Mine Operators

In specific relation to Fitness For Work, *Work Health and Safety Regulations 2012* (SA), Chapter 10 (Mines), Part 2, Division 3, Subdivision 3, Fitness for work states:

640 – Fatigue

In complying with Regulation 617 (*Managing risks to health and safety*), the mine operator of a mine must manage risks to health and safety associated with worker fatigue.

641 – Alcohol and drugs

- 1) In complying with Regulation 617 (*Managing risks to health and safety*), the mine operator of a mine must manage risks to health and safety associated with the consumption of alcohol by workers.
- 2) In complying with Regulation 617 (*Managing risks to health and safety*), the mine operator of a mine must manage risks to health and safety associated with the use of drugs by workers.

Note: Whilst Regulations 640 and 641 specifically address the requirements for dealing with fatigue, alcohol and other drugs, it is important to note that the *Work Health and Safety Regulations 2012* (SA), Chapter 3, Part 1, states that duty holders have a duty to ensure all “reasonably foreseeable hazards are identified” and that all “risks to health and safety are eliminated or minimised, so far as is reasonably practicable”.

1.2. Workers

Workers also have “duties” under the *Work Health and Safety Act 2012* (SA).

Section 28 – Duties of workers, states that while at work a worker must:

- a) Take reasonable care for his or her own health and safety; and
- b) Take reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons; and
- c) Comply, so far as the worker is reasonably able, with any reasonable instruction that is given by the PCBU to allow the person to comply with the Act; and
- d) Co-operate with any reasonable policy or procedure of the PCBU relating to health and safety at the workplace.

Workers should ensure that their activities away from work do not impact on their ability to perform their duties safely. They should also inform themselves about the effects of alcohol and other drugs on their ability to work safely. A worker should present and remain, while at work, fit for work. Being impaired by alcohol and / or other drugs may be a hazard and create risks for co-workers and other people at the workplace.

Note: *Workers includes employees, contractors, labour hire employees and trainees / apprentices.*

2. Consultation

The *Work Health and Safety Regulations 2012 (SA)*, Regulation 675R states that:

Workers and / or their representatives must be consulted in relation to the:

- Identification of potential hazards relating to Fitness For Work;
- Assessment of risks associated with Fitness For Work; and
- Identification and implementation of any controls for Fitness For Work matters.

3. Responsibilities and Accountabilities

3.1. Managers

Managers are responsible for ensuring:

- Fitness For Work management strategies are developed;
- Workers are consulted, in relation to all aspects of Fitness For Work matters;
- Risk assessments are conducted, taking into account relevant risk factors and by competent persons;
- Controls identified in the risk assessments are incorporated into the safety management system for the mine / quarry;
- All workers are trained and informed of the Fitness For Work requirements and controls;
- That Fitness For Work controls are applied fairly and consistently. This may include isolating a worker from the workplace in a manner which shows fairness, respect and has regard to the need to maintain confidentiality; and
- The Fitness For Work of workers reporting to them at the start of, and throughout, the work period is assessed and for taking prompt and appropriate action if required.

3.2. Supervisors

Supervisors are responsible for:

- Intervening when a worker is displaying signs that may indicate that the worker is not fit for work;
- Conducting or arranging Fitness For Work assessments;
- Ensuring that workers have received training and instruction on Fitness For Work requirements.

3.3. Workers

Workers (inclusive of contractors, labour hire, etc.) are responsible for:

- Participating in the identification, assessment and control of Fitness For Work matters;
- Managing their non-work activities to ensure that when presenting for work they do so in a Fitness For Work state; and
- Informing their Supervisor / Manager of any potential impairment to their Fitness For Work, such as, but not limited to:
 - Medical conditions;
 - Prescription medication; and
 - Fatigue.

4. Instruction and Training

You will need to ensure that all persons performing work at the mine / quarry are provided with instruction and training in relation to their roles and responsibilities within the Fitness For Work program. All persons must also be provided with the information and tools necessary to understand and manage their own Fitness For Work.

4.1. Site Inductions

You will need to ensure that, as part of the induction process all new workers are provided with information and instruction regarding:

- How to access relevant Fitness For Work policies and procedures;
- How the Fitness For Work policies will be put into practice; and
- If available, how to access the employee assistance program (EAP).

4.2. Visitor Inductions

All visitors need to be made aware of the key requirements of the Fitness For Work program and agree to abide by them.

4.3. Manager and Supervisor Training

Managers and Supervisors should receive training in the recognition, management and referral for assistance of any concerns relating to Fitness For Work.

4.4. Ongoing Information

The information and training provided on the Fitness For Work program during the induction process should be supported by continual awareness programs, to ensure that workers awareness of Fitness For Work issues is continually reinforced, especially in regards to:

- Fatigue;
- Alcohol and other drugs; and
- Mental health.

Information / awareness sessions can be incorporated into toolbox sessions, pre-shift information meetings, management meetings, etc. and may include inviting outside agencies to deliver a presentation.

5. The Fitness For Work Program

A successful Fitness For Work program provides awareness and support. Awareness so that workers understand their obligations to be fit for work, and support so that workers are given every opportunity to manage and maintain their own fit for work issues.

Typically Fitness For Work programs are designed to achieve awareness and support through:

- Defining responsibilities for managers, supervisors and workers;
- Policies and procedures;
- Training and information; and
- Assessment of Fitness For Work.

6. Additional Resources

MAQOHSC Alcohol and Other Drugs Guide

MAQOHSC Fatigue Guide

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

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Fatigue Guide



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

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Fatigue Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on managing the risks associated with fatigue.

1. What is fatigue?

Fatigue is more than feeling tired and drowsy. In a work context, fatigue is a state of mental and / or physical exhaustion which reduces a person's ability to work safely and effectively.

Fatigue is a complex issue that not only arises from hours of work and activities at the workplace but it is also influenced by factors outside of work, such as family responsibilities, stress, lifestyle, personal health, etc.

Fatigue can be caused by factors which may be work related, non-work related or a combination of both and can accumulate over time.

Most adults need seven to eight hours of sleep in every twenty-four hours to feel well rested. A sleep debt is built up by routinely getting less than seven to eight hours of sleep per night. This debt may result in impaired performance, reduced alertness and higher levels of sleepiness and fatigue. A sleep debt can only be repaid with restful sleep

2. Why is fatigue a problem?

Fatigue can adversely affect safety at the workplace. Fatigue can result in a lack of attention, difficulty following instructions, reduced ability to think clearly, and slower response to changing circumstances which may lead to errors and an increased risk of incidents and injuries, particularly when:

- Operating fixed or mobile plant, including driving vehicles;
- Undertaking critical tasks that require a high level of concentration; and
- Undertaking night or shift work when a person would ordinarily be sleeping.

The effects of fatigue can be short or long term. In the short term a person may show the signs or report the symptoms of fatigue outlined in section 3.

The longer term health effects of fatigue can include:

- Heart disease;
- Diabetes;
- High blood pressure;
- Gastrointestinal disorders;

- Lower fertility;
- Anxiety; and
- Depression.

3. Signs of fatigue

The following signs or symptoms may indicate a worker is fatigued:

- Long eye blinks;
- Repeated yawning;
- Frequent blinking;
- Bloodshot eyes;
- Poor reaction time;
- Slow speech;
- Loss of energy;
- Inability to concentrate;
- Excessive yawning; and
- Reduced hand-eye coordination.

A fatigued worker may also experience symptoms that are not obvious to others, such as:

- Feeling drowsy;
- Headache;
- Dizziness; and
- Blurred vision.

Note: *The above lists are not exhaustive and should be used as a guide only.*

4. Legislative requirements

As stated in the MAQOHSC Fitness for Work Guide, Persons Conducting a Business or Undertaking (PCBUs) / Mine Operators, in addition to the general Work Health and Safety requirements have an obligation under Regulation 640 to manage the risks to health and safety associated with fatigue.

Note: *See the MAQOHSC Fitness for Work Guide for specific legislative requirements.*

5. Fatigue management

The measures to manage the risks associated with fatigue will vary from one workplace to the next, depending on the nature of the work, environmental conditions, location and individual factors.

The risks associated with fatigue can be managed by following a systematic risk management process which involves:

- Identifying the factors (hazards) which may cause fatigue in the workplace;
- Assessing the risks;
- Identifying control measures;
- Implementing the most effective control measures reasonably practicable in the circumstances; and
- Reviewing control measures to ensure they are working as planned.

5.1. Consultation

As stated in the MAQOHSC Consultation and Communication Guide, all persons in the workplace need to be consulted about issues which may affect their health and safety.

Consulting workers at each step of the risk management process encourages everyone to work together to identify fatigue risk factors and implement effective control measures. Consultation also helps to raise awareness about the risks of fatigue.

Workers and their health and safety representatives (if in place) must be consulted when:

- Planning and designing work schedules and rosters;
- Making decisions on how to manage the risks of fatigue;
- Proposing changes to working hours, work schedules and procedures;
- Making decisions about providing information and training on fatigue; and
- After an incident or 'near miss' where fatigue was a factor.

5.2. Potential fatigue risk factors

The first step in the risk management process is to identify all reasonably foreseeable factors which could contribute to and increase the risk of fatigue. There may not be obvious signs of fatigue at the workplace but this does not mean it is not occurring or factors which may increase the risk of fatigue are not present.

Fatigue is often caused by a number of related factors which can be cumulative. The major factors contributing to and increasing the risk of fatigue involve:

5.2.1. Work rosters

Work rosters, such as shift work and the length of shifts, which limit the time workers, can physically and mentally recover from work may cause fatigue, for example:

- Early shift start times or late finishes;
- Short breaks between shifts'
- Shifts lengthened by overtime or double shifts;
- Not enough non-sleep rest breaks during a shift; and

- Working at night when the body is biologically programmed to sleep can interrupt a person's body clock.

The body clock is the body's natural rhythm which is repeated every twenty-four hours. It regulates functions including sleeping patterns, body temperature, hormone levels and digestion. As it is programmed for different levels of wakefulness, people experience different levels of alertness depending on the time of the day.

When a person's body clock is out of step, alertness decreases making them feel fatigued. This increases the risk of making errors and potentially resulting in incidents and injuries, either in the workplace or outside of work, including on the way to and from work.

5.2.2. Work demands

Some types of work, for example concentrating for extended periods of time, performing repetitious or monotonous work and performing work requiring continued physical effort can increase the risk of fatigue.

5.2.3. Sleep

While tired muscles can recover with rest, the brain can only recover with sleep. The most beneficial sleep is deep undisturbed sleep taken in a single continuous period.

The optimum amount of sleep varies for each person, however, an adult generally requires seven to eight hours of sleep daily.

When a person gets less sleep than they need in a day, they build up a sleep debt which accumulates until they can get enough sleep to overcome the sleep debt. Each extra day without enough sleep increases the debt, and when it becomes large enough fatigue can occur.

It may take several days before a person recovers from a sleep debt. Sleep debt is common with night shift workers as they often experience difficulty getting enough undisturbed sleep during the day.

5.2.4. Environmental conditions

Working in harsh and uncomfortable conditions can contribute to fatigue, for example, exposure to heat, cold, vibration or noisy workplaces can make workers tire quicker and impair performance.

5.2.5. Non-work related factors

Factors occurring outside of work may also contribute to fatigue. A worker's lifestyle, family responsibilities, health (e.g. insomnia, sleep apnea and some medication), other work commitments, and extended travel between work and home may all increase the risk of fatigue.

5.3. Assessing the risks

A risk assessment will assist in identifying:

- Where, which and how many workers (including contractors and subcontractors) are likely to be at risk of becoming fatigued;

- How often fatigue is likely to occur;
- The degree of harm which may result from fatigue;
- Whether existing control measures are effective;
- What action should be taken to control the risk of fatigue; and
- How urgently action to control the risk needs to be taken.

When assessing risks, contributors to fatigue should not be considered in isolation. For example, job demands, hours of work and environmental conditions may all increase the risk of fatigue in the workplace.

The risks of injury from fatigue may increase if workers work long daily hours in a physically or mentally demanding job. This risk of fatigue may increase when new workers begin their employment and are adjusting to work demands.

5.4. Controlling the risks

The most effective way to control the risks associated with fatigue is to eliminate the factors causing fatigue at the source.

If elimination is not reasonably practicable, the risks must be minimised, so far as is reasonably practicable.

What is reasonably practicable to do in managing the risks of fatigue will vary depending on the type of operation, the structure of your organisation as well as the person carrying out the work.

For example, control measures that a small business implements to manage the risk of fatigue may differ from those implemented by a larger corporation with 300 shift or night workers.

The factors contributing to the risk of fatigue are often inter-related. Incorporating a combination of control measures into general workplace systems, as well as control measures specific to the work, can help to minimise more than one contributing factor. For example, increasing the amount of time between shifts and adjusting shift starting times may improve the opportunity for sleep.

5.4.1. Work rosters

Control measures for fatigue risks which can be built into work rosters may include:

- Designing working hours and rosters to allow for good sleep opportunity and enough recovery time between work days or shifts for travelling, eating, washing and sleeping;
- Developing a working-hours policy on daily work hours, maximum average weekly hours, total hours over a three-month period, on-call work and work-related travel;
- Developing procedures to manage and limit excessive working hours, for example requiring minimum breaks on a regular basis, especially during longer shifts;
- Ensuring workers have and take adequate and regular breaks to rest, eat and rehydrate;
- Scheduling safety critical work outside the low body clock periods between 2am and 6am, and between 2pm and 4pm;

- Managing workload and work-pace change caused by machinery breakdowns or planned and unplanned absences;
- Avoiding work arrangements which provide incentives to work excessive hours;
- Managing overtime, shift swapping and on-call duties;
- Implementing processes to manage accrued leave balances and requests for leave, for example setting maximum limits of leave accrual to encourage workers to use it;
- Considering future rosters and schedules when approving request for leave or shift swaps, and ensuring leave is reflected in rosters;
- Having access to on-call workers for unplanned leave, emergencies or where workload increases;
- Developing plans to deal with workload changes due to absenteeism; and
- Filling vacant positions as soon as reasonably practicable and maintaining a relief pool of staff in high demand areas where fatigue is a risk.

Note: *The above list is not exhaustive and should be used as a guide only.*

Shift work and rosters

When planning work rosters for specific work arrangements, including shift and night work, Fly-in fly-out (FIFO), Drive-in drive-out (DIDO), seasonal and on-call work arrangements, consideration should be given to implementing additional specific control measures.

Specific control measures may include:

- Structuring shifts and designing work plans so work demands are highest towards the middle of the shift and decrease towards the end;
- Avoiding morning shifts starting before 6am where possible;
- Avoiding split shifts or if there is no alternative to split shifts consider their timing, for instance whether they are likely to disrupt sleep;
- Setting shift rosters ahead of time and avoiding last-minute changes, to allow workers to plan leisure time;
- Allocating shift and night workers consecutive days off to allow for at least two full nights' sleep including some weekends;
- Aligning shift times with the availability of public transport or if required, provide alternative transport at the end of a long shift;
- Overlapping consecutive shifts to allow enough time for communication at shift handovers;
- Avoiding overtime allocation after afternoon or night shifts;
- Consider if night work is necessary and rearrange schedules so non-essential work is not carried out at night;
- Keeping sequential night shifts to a minimum; and
- Providing information to shift workers containing tips for them to prevent and manage the risk of fatigue.

Note: *The above list is not exhaustive and should be used as a guide only.*

5.4.2. Work demands

Control measures to prevent or minimise the risk of fatigue in relation to work demands may include:

- Ensuring fit-for-purpose plant, machinery and equipment is used at the workplace, for example ergonomic furniture, lifting equipment and anti-fatigue matting for repetitive tasks performed while standing;
- Encouraging workers to report concerns they may have about work-related fatigue;
- Redesigning the job to limit periods of excessive mental or physical demands;
- Introducing job rotation to limit a build-up of mental and physical fatigue;
- Developing contingency plans for potential situations where workers may have to unexpectedly work longer hours, more shifts or a long sequence of shifts; and
- Planning for expected changes in work flow including anticipated peaks and troughs during the year.

Note: *The above list is not exhaustive and should be used as a guide only.*

5.4.3. Environmental conditions

Control measures to prevent or minimise the risk of fatigue in relation to environmental conditions may include:

- Avoid working during periods of extreme temperature or minimise exposure time through job rotation;
- Provide a cool area where workers can take a rest break and rehydrate in hot work environments;
- Install ventilation and mechanical cooling devices in hot, small and enclosed spaces such as truck cabins;
- Provide adequate facilities for rest, sleep, meal breaks, onsite accommodation (if appropriate);
- Install adjustable, low-vibration seats in machinery and vehicles and provide low vibration hand held equipment; and
- Provide and maintain a workplace which is well lit, safe and secure.

Note: *The above list is not exhaustive and should be used as a guide only.*

5.4.4. Lifestyle factors

Work and lifestyle often impact each other. For example, if a worker leaves their job tired and exhausted they may be less able to perform out-of-work activities or could be a danger to themselves and others when driving home tired.

Likewise, if a worker arrives at work fatigued they may be less productive or could be a danger to themselves and others in the workplace.

A person conducting a business or undertaking cannot control what a worker does outside of work. Workers have a duty to take reasonable care for their health and safety and this includes ensuring that they have enough sleep so they can arrive at work ready for duty.

However controls can be implemented to avoid potential conflicts between personal and work demands, for example:

- Develop and implement a fatigue policy for all workers including managers and supervisors;
- Consult workers about managing fatigue not just when at work; and
- Inform the workers of the risks associated with fatigue and how it relates to their health and safety duties.

Note: *The above list is not exhaustive and should be used as a guide only.*

6. Information and training

Providing information and training to workers about the factors that can contribute to fatigue and the risks associated with it, will not only help them to do their job but also assist in the implementation of control measures to minimise the risk of fatigue in the workplace.

Training about fatigue and relevant workplace policies should be arranged so it is provided to all workers on all shifts. Information and training for workers should include:

- The work health and safety responsibilities of everyone in the workplace;
- The factors that can contribute to fatigue and risks that may be associated with it;
- Symptoms of fatigue;
- The body clock and how fatigue can affect it;
- Effective control measures for fatigue, for example work scheduling;
- Procedures for reporting fatigue;
- The effects of medication, drugs and alcohol;
- Nutrition, fitness and health issues relating to fatigue; and
- Balancing work and personal demands.

A record of the completed training must be maintained.

Note: *See the MAQOHSC Training and Instruction guide and the MAQOHSC Training Matrix template for further information.*

6.1. Managers and Supervisors

Managers and supervisors should be trained to:

- Recognise fatigue;
- Understand how fatigue can be managed and how to implement control measures, including how to design suitable rosters and work schedules in consultation with workers; and

- Take appropriate action when a worker is displaying fatigue related impairment. An appropriate level of supervision should be provided, for example a higher level of supervision for safety critical tasks, which may include monitoring work to ensure safe work practices are followed.

7. Monitoring and reviewing

Once control measures are implemented, they should be monitored and reviewed to ensure they continue to effectively manage fatigue. Consider implementing trial periods for any new work schedules and encourage workers to provide feedback on their effectiveness.

To determine monitoring and review frequencies, consider the level of risk. For example, high-risk hazards need more frequent assessments.

Control measures should also be reviewed when:

- There is any indication risks are not being controlled;
- New tasks, equipment, procedures, rosters or schedules are introduced;
- Changes are proposed to the work environment, working hours, schedules and rosters;
- There is an incident where fatigue is a contributing factor;
- New information regarding fatigue becomes available; and
- The results of consultation, including a request from a health and safety representative, indicate that a review is necessary.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Regulations 2012 (SA)

AS 1269.1:2005 – Occupational noise management Part 1: Measurement and assessment of noise immission and exposure

Appendix A: Fatigue Risk Management Chart

Hazard Identification	Risk Assessment			Risk Control
Mental and physical demands of work	Low Risk	Moderate Risk	High Risk	Options
<p>Hazards may include:</p> <ul style="list-style-type: none">1. Repetitive or monotonous work2. Sustained physical or mental effort3. Sustained and / or complex physical or mental tasks	<div><div><div>1. Varying tasks on demand</div><div>2. Minimal physically demanding work</div><div>3. Minimal periods of high concentration and/or mentally demanding work</div></div><div><div>Highly repetitive work and / or high concentration work, with high demands over an extended period of time</div><div>Highly physically demanding work that results in muscle fatigue</div><div>Long periods of high concentration and / or mentally demanding work</div></div></div>			<ul style="list-style-type: none">• Re-design jobs to eliminate boring or repetitive tasks• Improve communication• Provide training to allow multi-skilling and effective job rotation• Use alarms and monitors, particularly for solo work (e.g. driving vehicles)• Use plant, machinery and equipment to eliminate or reduce the excessive physical demands of the job• Reduce the amount of time workers need to spend performing sustained physically and mentally demanding work• Ensure there are adequate workers and other resources to do the job without placing excessive demands on staff• Roster enough workers during peak times and demands• Ensure adequate breaks during shifts to allow recovery• Allow supervisors and workers to reschedule tasks if fatigue becomes a problem• Ensure work demands gradually increase towards the middle of the shift and decrease towards the end• Eliminate sources of risks that might exacerbate fatigue (e.g. lack of job control, manual tasks, extremes of temperature)• Improve the duration and timing of work• Ensure safe and efficient shift hand-over
Work scheduling – Night work	Low Risk	Moderate Risk	High Risk	Options
<ul style="list-style-type: none">1. Shift end (for those working eight hours or more between 10.00pm and 6.00am)2. Length of shift3. Sequential night shifts4. Period of non-work following a sequence of night shifts5. Breaks during work – frequency6. Breaks between work periods – recovery time7. Seasonal work arrangements – hours worked	<div><div>1</div><div>After 10.00pm</div><div>Before 6.00am</div></div>			<ul style="list-style-type: none">• Eliminate or limit night work where possible• Eliminate the use of nightshifts for particular jobs or activities• Schedule work for hours when the risks may be lower – for example, complex and safety-critical tasks are best undertaken during normal day shifts when workers are less likely to be fatigued, rather than during low body clock periods (i.e. don't schedule tasks between 2am and 6am and, to a lesser degree, between 2pm and 4pm)• Avoid scheduling higher risk tasks on the first night of a night shift cycle. If unavoidable, when planning the task consider additional controls such as job rotation or additional rest breaks• Minimise or redesign routine administrative tasks to ensure workers can focus on core duties during their night work• Allow for naps during nightshifts• Limit the number of consecutive night shifts worked – no more than four night shifts in a row• Allow regular night employees / workers periods of normal nights' sleep to catch up on their sleep deficit• Ensure that rosters allow for at least two full nights' sleep after the last night shift• Arrange shifts so that day sleep is adequate• Use a forward-rotation shift system (i.e. morning to afternoon, afternoon to night)• Improve the order, speed, direction and length of rotation of the shift cycle• Except for emergencies, give at least 24 hours' notice before night work. Consider providing a longer period of notice so that workers have time to adjust their activities
	<div><div>2</div><div>8 Hours</div><div>10 Hours</div><div>12 Hours</div></div>			
	<div><div>3</div><div>6 or more 8 hour shifts 5 or more 10 hour shifts 4 or more 12 hour shifts</div></div>			
	<div><div>4</div><div>48 Hours</div><div>Less than 48 Hours</div></div>			
	<div><div>5</div><div>Adequate and regular breaks</div><div>Infrequent or no breaks</div></div>			
	<div><div>6</div><div>Adequate time for sleep, travel, etc.</div><div>Inadequate time for sleep, travel, etc.</div></div>			

	7	Regular hours over 12 months	Long hours during peak periods	
Work scheduling – Shift work	Low Risk	Moderate Risk	High Risk	Options
1. Length of shift	<div>1<div>10 Hours</div><div>13 Hours</div></div>			Hours of work in a single shift. This includes travel time, especially for remote sites <ul style="list-style-type: none">• Reduce working hours• Increase resourcing• Eliminate the use of extended hours for particular jobs or activities• Control the length of shifts• Limit the use of overtime, especially unscheduled overtime• Monitor hours of work• Provide alternative transport at end of overtime / long shift
2. Time of shift				
3. Speed and direction of shifts	2 <div>Day shifts</div> <div>Afternoon shifts</div> <div>Night shifts</div>			
4. Split shifts/variable shifts	3 <div>Forward rotation Days / nights</div> <div>Backward rotation – night / days Slower rotation –weekly / 3-4 weekly</div>			
	<div>4<div>13 Hours period</div></div>			
Work scheduling – Hours	Low Risk	Moderate Risk	High Risk	Options
1. Average weekly hours	<div>1<div>35-40 Hours (working week)</div><div>48 Hours (working week)</div><div>56 Hours (working week)</div></div>			Hours of work across a shift cycle <ul style="list-style-type: none">• Develop a working-hours policy on daily work hours, maximum average weekly hours, total hours over a three month period and work-related travel• Reduce working hours• Reduce the number of consecutive day shifts that can be worked• Eliminate or reduce the need to work long shifts for more than four consecutive days• Allocate shift workers consecutive days off, including some weekends, depending upon their fatigue risk level• Avoid working arrangements that provide incentives to work excessive hours• Control overtime, shift swapping and on-call duties• Offer alternatives to workers who may have difficulties adjusting to working hours
2. Total hours worked over a three month period				
3. Daily work hours	<div>2<div>624 working hours</div></div>			
4. Daily hours and work related travel				
5. Scheduling of work	<div>3<div>9 working hours</div><div>12 working hours</div></div>			
	<div>4<div>10 working hours</div><div>13 working hours</div></div>			

	<div><div>5</div><div>Regular and predictable hours</div><div>Irregular and unpredictable hours, short notice of schedule, extended overtime.</div></div>			<div>Breaks between work shifts</div> <ul style="list-style-type: none">• Increase the length of breaks between shifts• Allow for recovery between work periods• Defer non-urgent work to allow appropriate rest and recuperation for workers• Provide rest days; (opportunity for two consecutive night sleeps)• Improve the timing of shifts• Allow for family and social commitments between shifts and shift cycles• Make sure that there is enough time in a break for six hours uninterrupted sleep <div>Breaks within work shifts</div> <ul style="list-style-type: none">• Provide more and / or longer breaks to allow for recovery within work periods• Provide adequate resources to cover breaks• Ensure adequate number and location of crib and toilet facilities• Reduce the use of split shifts• Where split shifts are used, arrange timing so sleep of workers is not disrupted due to the times they are required to work <div>Shift start / finish times</div> <ul style="list-style-type: none">• Don't start or finish between 10pm and 6am• Ensure time for adequate communication at shift handovers• Match shift times to the availability of public transport <div>Changes to rosters</div> <ul style="list-style-type: none">• Set shift rosters ahead of time and avoid sudden changes of shifts to allow workers to plan leisure time• Reduce irregular and unpredictable work schedules
Excessive commuting times	Low Risk	Moderate Risk	High Risk	Options
	<div><div>Minimal commuting time</div><div>Long commuting time</div></div>			<ul style="list-style-type: none">• Start work at long distance commute sites on the day after arrival and start travel home on the day after the shift cycle is finished• Assist with travel arrangements, e.g. provide transport• Reduce active working time to account for long commuting time or distance
Work environment conditions	Low Risk	Moderate Risk	High Risk	Options
1. Exposure to hazardous chemicals and atmospheric contaminants	<div><div>1</div><div>For hazardous substances, low risk calculated using national exposure</div><div>For hazardous substances, high risk calculated using national exposure</div></div>			<div>Hours of work across a shift cycle</div> <div>Stress</div> <ul style="list-style-type: none">• Improve job control and the other risk factors associated with stress• Ensure opportunities to clarify stress-related issues <div>Physical conditions</div> <ul style="list-style-type: none">• Avoid working during periods of extreme temperature• Control exposure to hazardous substances and environments• Provide effective protective clothing and equipment, allowing for different shifts• Use heating and cooling to control ambient temperatures to support alertness• Provide adequate facilities for rest, sleep, meal breaks, onsite accommodation (if appropriate) and other
2. Exposure to noise				
3. Exposure to extreme temperatures	<div><div>2</div><div>Low risk calculated using formulae in AS/NZS 1269.1</div><div>High risk calculated using formulae in AS/NZS 1269.1</div></div>			
4. Exposure to vibration	<div><div>3</div><div>Minimal exposure</div><div>Long term exposure</div></div>			
5. Effect of exposure during extended shifts				

	<div><div>4Minimal exposureLong term exposure</div><div>5Minimal exposureHigh exposure</div></div>	<div>essential requirements, such as bathroom facilities</div> <div><div>• Install adjustable, vibration-free seats in appropriate machinery and vehicles</div><div>• Ensure the workplace and surroundings are well lit, safe and secure</div><div>• Employees / workers who perform repetitive manual tasks should have regular rest breaks</div><div>• Ensure exposures are carefully monitored and exposure levels adjusted. For example, exposure during a 10-hour shift may not equate to 1.25 times the exposure experienced during an eight-hour shift</div></div>
Non-work related factors	<div>Low Risk</div> <div>Moderate Risk</div> <div>High Risk</div>	Options
<div>1. Sleep (amount and quality)</div> <div>2. Health</div> <div>3. Fitness for work</div> <div>4. Lifestyle factors</div>	<div><div>1Night sleep8 hours night sleep in 24 hoursDay sleep6 hours night sleep in 24 hours</div><div>2Poor dietRecent illness / injurySleep disorders</div><div>3Influence of alcohol, other drugs or amount of sleep</div><div>4Activities / responsibilities that limit the amount of sleep e.g. Second job, long commute</div></div>	<div><div>• Maintain vigilance in identifying non-work related factors</div><div>• Subsidise modifications to private homes to improve sleeping conditions (e.g. air conditioning)</div><div>• Provide information and education about how non-work related factors can increase the risks of fatigue</div><div>• Provide a mechanism to encourage workers to report non-work factors that might affect fatigue management</div></div>

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Alcohol and Other Drugs Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

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Alcohol and Other Drugs Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on managing the risks associated with alcohol and other drugs.

Forward

A range of factors, both at the workplace and in people's personal lives, can impact on the ability to work safely. The use of alcohol and/or other drugs may be one of them.

Alcohol and other drugs usage becomes a health and safety issue if a worker's ability to exercise judgment, coordination, motor control, concentration and alertness at the workplace is impaired, leading to increased risk of injury or incidents to themselves or others.

Co-workers may be placed in difficult situations, such as being expected to cover unsafe work practices or faced with reporting a fellow worker.

Workers must take reasonable care for their own health and safety and to ensure that their acts or omissions do not adversely affect the health and safety of others at the workplace. The consumption of alcohol and other drugs while at work is therefore unacceptable, except in relation to any authorised and or prescribed medications. Workers should present themselves for work and remain, while at work, capable of performing their work duties safely.

1. Legislative Responsibilities

As stated in the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC) Fitness For Work Guide, all Persons Conducting a Business or Undertaking have a duty to ensure all reasonably foreseeable hazards are identified, assessed and that these risks to health and safety are eliminated or minimised so far as is reasonably practicable. In addition to this requirement there is a requirement (Regulation 641) for Mine Operators to manage risks to health and safety associated with the consumption of alcohol by workers and to manage risks to health and safety associated with the use of drugs by workers.

2. Identifying Alcohol and Other Drug Related Risks

When attempting to identify alcohol and other drug related risks to health and safety, consideration should be given to:

- ☐ Workers being intoxicated at work;
- ☐ Regular use or dependence on alcohol or other drugs that adversely affects work performance or conduct;
- ☐ The possession, consumption, distribution and sale of illegal drugs in the workplace; or
- ☐ The effects of some over the counter and prescribed medications.

Note: *The above list is not exhaustive and should be used as a guide only.*

Some indicators that can suggest the presence of alcohol and other drug misuse include:

- ☐ Near miss incidents
- ☐ Violence
- ☐ Habitual lateness
- ☐ Frequent absences
- ☐ Neglect of personal grooming
- ☐ Interpersonal problems
- ☐ Worker experiencing poor coordination, poor concentration and/or visual disturbance.

Note: *The above list is not exhaustive and should be used as a guide only.*

3. Developing an Alcohol and Other Drugs Policy

The first step for Persons Conducting a Business or Undertaking in dealing constructively with alcohol or other drug related hazards in their workplace, is to develop an Alcohol and Other Drugs policy in consultation with workers.

Comprehensive workplace Alcohol and Other Drugs policies apply to all workers in the workplace and include prevention, education, counselling and rehabilitation arrangements.

This guide describes a range of policy and safety initiatives that can be considered for inclusion in a workplace Alcohol and Other Drug policy, including information on:

- ☐ Managing alcohol and other drug related health and safety risks;
- ☐ Approaching a worker who may be under the influence of alcohol or other drugs;

- ☐ Procedures for reporting alcohol and other drug use;
- ☐ Alcohol and other drug information, education and training;
- ☐ Counselling and support, such as Employee Assistance Programs (EAPs); and
- ☐ Disciplinary procedures.

Note: *Not all of the initiatives described will be suitable in all workplaces. The nature and severity of alcohol and drug related hazards may vary between workplaces. An alcohol and other drug policy that is suitable in one workplace may not be appropriate in another.*

When developing your Alcohol and Other Drugs policy consideration should be given to:

- ☐ The desired aims and outcomes of the policy;
- ☐ The standards of behaviour required to comply with the policy;
- ☐ The value of senior management commitment to the policy and for creating workplace awareness about the harmful effects of alcohol and other drugs;
- ☐ The factors in the workplace that may contribute to the harmful alcohol and drug use;
- ☐ Restrictions on the availability of alcohol and other drugs in the workplace, such as at company functions and the use of over the counter or prescription medication;
- ☐ Early intervention, the earlier a problem is identified and addressed, the better the chances of it being successful;
- ☐ Reporting procedures, this needs to be a confidential process that will encourage both an affected worker and/or other workers to report hazards relating to alcohol and other drugs. Consideration should also be given to including alcohol and other drug factors into your incident reporting system;
- ☐ The type of counselling and support services that would be appropriate for your workplace;
- ☐ The information, education and training needs of managers, supervisors and workers;
- ☐ Confidentiality, privacy and anti-discrimination requirements; and
- ☐ The types of disciplinary action.

Note: *The above list is not exhaustive and should be used as a guide only.*

4. Approaching a worker who may be under the influence of alcohol or other drugs

Approaching a person who is under the influence of alcohol or other drugs requires skill and sensitivity to achieve the best outcome for all at the workplace. When establishing a policy, consideration should be given to designating and training persons to approach workers who are displaying signs of being under the influence of alcohol or other drugs.

Suitable persons may include managers, supervisors, health and safety representatives or other persons who have appropriate knowledge, experience and/or qualifications (e.g. counselling). It is important that designated persons are aware of the most effective style of approach.

Procedures of this kind should include a chain of responsibility for making approaches if initial contact produces a negative or hostile response.

When approaching an apparently intoxicated worker it can be more effective and less confronting to talk in terms of their approach to safety and general work performance rather than their alcohol or drug use.

Care needs to be taken when making this judgment in case the employee is ill or injured, taking prescribed medication or in some other form of distress which may account for their behaviour. Where legitimate medication is the cause of unsafe performance, the employee may need to see their general practitioner for a medication review.

5. Procedures for reporting alcohol and other drug use in the workplace

The role of the manager/supervisor is critical to the successful implementation and monitoring of a workplace alcohol and other drugs program. The manager/supervisor needs to be consistent in the implementation of any policy and program and consider the following factors:

- ☐ Provision of training and information to relevant managers/supervisors/workers that outlines their role and responsibilities in the management of this hazard in the workplace;
- Communicating to workers the organisation's policy and program on alcohol and other drug use in the workplace and nominating a contact person who can provide additional information;
- ☐ Providing appropriate support, assistance and guidance to the employee who is attending a rehabilitation program; and
- ☐ Reviewing and evaluating the policy and program through the worker consultative mechanism to ensure it is current and in line with changes that may occur within the organisation.

6. Information, Training and Education

It is essential to promote a workplace that is drug and alcohol free. Persons Conducting a Business or Undertaking can encourage this culture by providing information and education to all workers.

Information should be well communicated within the workplace and be included in the induction and ongoing training. Workers should be aware of the issues associated with the misuse of drugs and alcohol, and how it can have serious consequences for workplace health and safety.

Below is a list of points that should be considered when you are developing a training program:

- How the company's policy defines unacceptable alcohol and other drugs use;
- ☐ How you are going to deal with the long-term user and those intoxicated in one-off situations;
- ☐ The effects of alcohol and other drugs on health, safety and work performance;
- ☐ Alcohol and other drug use and its retention in the blood stream into the working day, e.g. the impact of late night drinking;

- ☐ Work Health and Safety training could include general statistics on workplace alcohol and other drugs use, and related incidents;
- ☐ Advice on personal responsibility relating to alcohol and other drug taking;
- ☐ The consequences for workers who fail to comply with the alcohol and other drugs policy;
- ☐ Workplace and personal lifestyle stressors that can contribute to alcohol and other drugs use and strategies for personal stress reduction;
- Information about a person's ability to recover after consuming alcohol and other drugs as some people believe they can recover quickly after heavy alcohol or other drug consumption, and believe they are fit to work;
- ☐ Ways of dealing with problem drinking and drug use;
- ☐ Who to approach in the workplace for assistance with an alcohol/drug problem;
- ☐ The legal environment including the contract of employment in relation to alcohol and other drugs use;
- ☐ Any relevant counselling, treatment and rehabilitation services available in the workplace and/or externally. (Post contacts with phone numbers on notice boards/in newsletters);
- ☐ Training for relevant managers that includes: how to explain and implement any services the organisation provides in relation to their alcohol and other drugs policy and program, e.g. how to refer a worker to rehabilitation and support services, how to identify alcohol and other drug use and approach employees who may be under the influence; and
- ☐ Information for workers about their role in identifying and assessing any work-related risks/tasks associated with the inappropriate use of alcohol and other drugs.

Note: *The above list is not exhaustive and should be used as a guide only.*

7. Counselling and Support

Workers should be informed about avenues for counselling and support services, which can be accessed through their General Practitioner, the local community health centre or an employee assistance program (EAP) where available.

Employee assistance programs may add to the effectiveness of a workplace alcohol and other drugs policy. Workers who are identified by supervisors or themselves as having an alcohol or drug problem could be assisted through recognised treatment or an employee assistance program where available.

A workplace alcohol and other drugs policy should not rely solely upon an employee assistance program.

8. Disciplinary Procedure

A procedure for the counselling and, if necessary, discipline of workers should be consistent with any existing awards, agreements and other established counselling and disciplinary measures which apply in the workplace.

9. Alcohol and Other Drug Testing

Drug testing, as a means of managing alcohol and other drug related risks, has a number of significant limitations:

- ☐ A positive test (referred to as a non-negative) for alcohol and other drugs is not in itself evidence of impairment of ability to perform or intoxication. This is particularly so in relation to the presence of a drug (other than alcohol) where there is much less international consensus on the relationship between the measured level of a drug (or its metabolite) and levels of impairment
- ☐ If a worker refuses to be tested it cannot be presumed that they are intoxicated. Workers have a legal right to refuse to be tested, unless specific legislation, contracts or employment agreements provide otherwise
- ☐ The reliability of testing can be subject to legal challenge due to varying accuracy rates.

The decision to use alcohol and other drug testing should be made in consultation with workers, health and safety representatives and union representatives. Agreement may be sought where a risk assessment has identified that there are risks involved in undertaking certain activities whilst under the influence of alcohol and other drugs. Privacy, confidentiality and the legal position of workers and management also need to be considered.

It is recommended that alcohol and other drug testing only be implemented as part of a comprehensive alcohol and other drug program with appropriate safeguards, clear policy and procedures, and provision of education and counselling. If utilised, testing should act as a deterrent, not a mechanism to 'catch people out'.

Other less invasive strategies should be investigated before making a decision to introduce testing.

Workers (inclusive of contractors) should be informed about drug and alcohol testing expectations before commencing employment. Workers should also be informed that alcohol and other drugs used outside of the workplace may remain in their systems after returning to work and can affect work performance.

Testing procedure

If testing is to be conducted, it is recommended that rigorous testing procedures be developed and applied.

For further information, Australian Standards (including AS/NZS 4308:2008 Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine and AS

4760:2006 Procedures for specimen collection and the detection and quantitation of drugs in oral fluid) are a source of detailed technical advice on appropriate collection procedures. These and other relevant Australian Standards can be purchased online at www.saiglobal.com.

Persons Conducting a Business or Undertaking need to ensure that all testing is undertaken by an accredited laboratory.

10. Additional Resources

SafeWork SA

Alcohol and drugs: http://www.safework.sa.gov.au/show_page.jsp?id=115268#.V-yILpqa3IU

Safe Work Australia

Work-Related Alcohol and Drug Use: A Fit for Work Issue:

<https://www.safeworkaustralia.gov.au/doc/work-related-alcohol-and-drug-use-fit-work-issue>

SA Health

Drug and alcohol emergency information:

<http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/health+topics/health+conditions+prevention+and+treatment/drugs/drug+and+alcohol+emergency+information>

Alcohol and Drug Information Service (ADIS):

<http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/health+service/s/drug+and+alcohol+services/alcohol+and+drug+information+service+adis>

Drug and Alcohol Services South Australia (DASSA):

<http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/about+us/our+statewide+services/drug+and+alcohol+services+sa/drug+and+alcohol+services+south+australia>

beyondblue

Drugs, alcohol and mental health fact sheet:

<http://resources.beyondblue.org.au/prism/file?token=BL/0058>

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

Alcohol and Other Drugs Policy

Appendix A: Alcohol and Other Drugs Policy example *(ensure to delete)*

This policy demonstrates *(insert company name)* commitment to:

- Health and safety, and to eliminating or minimising risks so far as is reasonably practicable, for all workers, contractors and visitors;
- Complying with the requirements of the *Work Health and Safety Act 2012 (SA)* and the *Work Health and Safety Regulations 2012 (SA)*; and
- Dealing with the hazards associated with alcohol and other drugs.

This policy applies to all persons entering the *(insert company name) (insert quarry/mine name)*.

Definition

Alcohol and Other Drug use can affect a person's ability to work safely and creates a risk to work health and safety.

Responsibilities

No person shall consume alcohol or other drugs in the workplace, except:

- For legitimate medical reasons: You must notify your supervisor if prescribed medication is likely to affect your behaviour and therefore work health and safety. Your supervisor may assign you other duties while you're taking the medication; and
- At workplace-based social events: This is dealt with in more detail under 'Social events' in this policy.

The **manager/supervisor** must, if they have reasonable grounds for believing that you are incapable of safely performing your duties or may be a risk to others due to the effects of alcohol or other drugs, shall arrange for you to be removed safely from the workplace.

Each person must ensure that they are not, by the consumption of alcohol or other drugs, in such a condition as to endanger their own safety or that of others.

This includes not coming to work if, after drinking or using drugs in your social time, your ability to work safely is still impaired. If you come to work, you must report to your supervisor who may assign you other duties or arrange for you to leave the workplace.

Managing Alcohol and Other Drugs

(insert company name) will identify all workplace factors that may influence someone to turn to alcohol and other drugs, and use the hazard management process to eliminate alcohol and other drugs use or control the risks from them.

(insert company name) will consult with workers, Health and Safety Representatives and/or the Work Health and Safety Committee on this issue.

(Outline the specific actions you will take to address any factors in your workplace that may influence someone to turn to alcohol or other drugs.)

Alcohol and Other Drugs Policy

Disciplinary action

If anyone is found to breach this policy, management will *(outline the actions you will take, e.g. giving a formal warning, followed by encouraging them to get treatment, suspension, and possible termination of employment).*

Testing

If you decide to introduce a testing program, you must include details about it in this policy. This includes:

- ☐ The practicalities of testing: who will do it, when and how it will be done, and what type of procedure will be used;
- ☐ The procedures for the action you will take for a positive (non-negative) test result; and
- ☐ Acknowledgement that people have the legal right to refuse to be tested, unless specified in legislation or in their contract or employment agreement.

Social events

Responsible social events can be held by *(insert company name)* *(include likely events)*. To ensure everyone remains safe:

- ☐ Everyone is expected to be responsible and mindful of the workplace;
- ☐ Non-alcoholic drinks and food will be provided;
- ☐ Alternative transport arrangements will be provided to discourage drink-driving; and
- ☐ *(include any other measures you may take).*

Information and support

(insert company name) will provide regular training and information about the effects of alcohol and other drug use on personal and work health and safety, and on the components of this policy.

(Include any support, whether internal or external, that you can provide workers, especially those who admit they have a drug or alcohol problem).

Policy authorised by:

Signed _____

Print Name _____

Date _____

Review Date _____

Mining and Quarrying
Occupational Health and
Safety Committee
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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Work Health and Safety Roles and Responsibilities Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

Users should always verify historical material by making and relying upon their own separate inquiries prior to making any important decisions or taking any action on the basis of this information.

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Work Health and Safety Roles and Responsibilities Guide

AIM

The aim of this Guidance Material is to provide all persons in the workplace with an understanding of their roles and responsibilities in relation to the *Work Health and Safety Act 2012* (SA) and the *Work Health and Safety Regulations 2012* (SA).

Definitions

- Due Diligence:** To acquire and keep up to date knowledge of Work Health and Safety matters, to understand the operations being carried out by the PCBU and the hazards and risks associated with the operations, to ensure that the PCBU has and uses appropriate resources and processes to eliminate or minimise risks to health and safety arising from the work being done, to ensure that the PCBU has appropriate processes in place to receive and respond promptly to information regarding incidents, hazards and risks and to ensure that the PCBU has, and uses processes for complying with duties or obligations under the *Work Health and Safety Act 2012* (SA).
- HSR:** A Health and Safety Representative (HSR) is a member of the workgroup elected to represent workers in matters relating to Work Health and Safety.
- Mine Holder:** Is the PCBU with control over a right or entitlement to carry out mining operations if a mining authorisation (as deemed by the South Australian Dept. of State Development, Mining Regulation Branch) is required for those operations and the PCBU holds the required mining authorisation, such as an Extractive Mineral Lease, Mining Lease, Private Mine, etc.
- Mine Operator:** Is the Mine Holder of the mine, unless the mine holder appoints another PCBU to be the Mine Operator in accordance with Regulation 615 of the *Work Health and Safety Regulations 2012* (SA).
- Officer:** The term “Officer” in regards to the *Work Health and Safety Regulations 2012* (SA) is defined in the *Corporations Act 2001* (SA).
An Officer is a person who makes or participates in making decisions that affect the whole or a significant part of the business or undertaking, has the capacity to significantly affect the financial standing of the business or undertaking and those whose instructions or wishes the directors of the corporation are accustomed to act upon.

Others:	Persons who are at the workplace but do not carry out work for the PCBU. This includes, but is not limited to, visitors, customers, clients and general public.
PCBU:	Person Conducting a Business or Undertaking (PCBU) is the legal entity operating a business or undertaking. A PCBU may be an individual person or an organisation conducting a business or undertaking. It is not an individual, unless they are conducting the business in their own name as a sole trader or partner. Persons engaged solely as a worker or Officer of the business or undertaking are excluded from the definition of PCBU.
Senior Executive:	Includes, but is not limited to, persons holding the position Chief Executive Officer, Director, Chief Operating Officer, Chief Financial Officer. Senior Executive positions are typically deemed to be "Officers".
Manager:	Includes, but is not limited to, persons holding the position Mine / Quarry Manager, Maintenance Manager, Human Resource Manager, Processing Manager, Environment Manager and Work Health and Safety Manager. Dependent upon the structure of the organisation, some Management positions may also be deemed "Officers".
Supervisor:	The immediate day to day manager of an individual or group of workers.
Worker:	Any person who carries out work for a PCBU, including work as an employee, contractor, subcontractor, self-employed person, outworker, apprentice or trainee, work experience student, employee of a labour hire company placed with a 'host employer' and volunteers.
Workplace:	A place where work is carried out for the PCBU and includes any place where a worker goes, or is likely to be, while at work. This may include, but is not limited to, mine / quarry pits, underground workings, workshops, training rooms, crib / lunch rooms, vehicles or vessels, processing facilities, offices, exploration sites and any area of the PCBU's operations.

1. Work Health and Safety Responsibilities - General

Work Health and Safety responsibilities for different roles are legislated in the *Work Health and Safety Act 2012* (SA). The Act specifies duties for Person Conducting a Business or Undertaking (PCBUs), Officers, workers and others including:

- Designers;
- Suppliers;
- Importers;
- Manufacturers; and
- Installers.

The following principles apply to all duties:

- Duties are not transferrable - they cannot be delegated to another person
- A person can have more than one duty e.g. a PCBU manufacturing plant has duties as a manufacturer, and duties as a PCBU to their own workers.

More than one person can have the same duty. Where this happens, each person is required to carry out their duty to the extent they have the capacity to influence and control the matter.

Where a person has a duty to ensure health and safety, this means they are required to:

- Eliminate risks to health and safety as far as reasonably practicable;
- Or, if it is not reasonably practicable to eliminate risks to health and safety, to minimise the risks to health and safety, so far as is reasonably practicable.

2. Person Conducting a Business or Undertaking (PCBU)

Under the *Work Health and Safety Act 2012* (SA), a Person Conducting a Business or Undertaking (PCBU) has a primary duty of care to ensure workplace health and safety.

A PCBU must ensure, so far as is reasonably practicable, the health and safety of workers engaged by the PCBU (employees), workers caused to be engaged by the PCBU (labour hire employees), workers whose activities in carrying out work are influenced or directed by the PCBU (contractors) and other persons (Volunteers, Visitors, etc.), are not put at risk from work carried out as part of the business or undertaking by ensuring:

- Safe systems of work are developed and implemented;
- A safe work environment;
- Accommodation for workers, if provided, is appropriate;
- Safe use of plant, structures and substances;
- Facilities and amenities for the welfare of workers are adequate;
- Notification, investigation and recording of workplace incidents;
- Adequate information, training, instruction and supervision is provided;
- Compliance with the requirements under the *Work Health and Safety Regulations 2012* (SA);
- Effective systems are in place for monitoring the health of workers and workplace conditions.

2.1 Mine Operator

In addition to the requirements of a PCBU under the *Work Health and Safety Act 2012* (SA), the PCBU that is deemed or nominated as the Mine Operator under the *Work Health and Safety Regulations 2012* (SA), Chapter 10 Mines, has the duty to ensure:

- A safety management system is developed and implemented;
- That the safety management system contains the required content as specified in Regulation 622;
- That performance standards for measuring the effectiveness of the safety management system are developed;
- A system for auditing the effectiveness of the safety management system against the performance standards is developed and implemented;
- That the safety management system is maintained so as to remain effective; and
- That the safety management system is reviewed at least once every three years.

2.2 Mine Holder

If you as the Mine Holder, have appointed another PCBU as the Mine Operator, you have a duty to ensure that the Mine Operator is provided with all relevant information held by or under your control that may reasonably be required by the mine operator to discharge the duties imposed on the Mine Operator under the *Work Health and Safety Act 2012* (SA).

3. Officers

What must an Officer do?

The health and safety duty of an Officer requires them to exercise due diligence to ensure compliance by the PCBU with its health and safety obligations.

An Officer must ensure that the PCBU has in place appropriate systems of work and must actively monitor and evaluate health and safety management. An Officer's duty is aimed at achieving and sustaining compliance by the PCBU, which may not occur without the active involvement of its Officers.

The *Work Health and Safety Act 2012* (SA), Section 27(5) states that due diligence requires an Officer to take reasonable steps:

1. To acquire and keep up-to-date knowledge of Work Health and Safety matters (for example, what the *Work Health and Safety Act 2012* (SA) requires and the strategies and processes for elimination or minimisation of hazards and risks so far as is reasonably practicable);
2. To gain an understanding of the nature of the operations of the PCBU and generally of the hazards and risks associated with those operations (advice from a suitably qualified person may be required to gain a general understanding of the hazards and risks associated with the operations of the business or undertaking);

3. To ensure that the PCBU has available for use, and uses, appropriate resources and processes to eliminate or minimise risks to health and safety from work carried out as part of the conduct of the business or undertaking (this requires an understanding of what is needed for health and safety, making decisions about procedures and resources and ensuring that they are used);
4. To ensure that the PCBU has appropriate processes for receiving and considering information regarding incidents, hazards and risks and responding in a timely way to that information (this should include the reporting of incidents and emerging hazards and risks, identifying if any further action is required to eliminate or minimise the hazards or risks so far as is reasonably practicable and ensuring steps are taken by the PCBU to take reasonably practicable steps);
5. To ensure that the PCBU has, and implements, processes for complying with any duty or obligation of the person conducting the business or undertaking under the *Work Health and Safety Act 2012* (SA), This includes:
 - Reporting notifiable incidents;
 - Consulting with workers;
 - Ensuring compliance with notices issued under the *Work Health and Safety Act 2012* (SA);
 - Ensuring the provision of training and instruction to workers about Work Health and Safety;
 - Ensuring that health and safety representatives receive their entitlements to training;
 - Ensuring that the PCBU complies with licensing and registration obligations;
 - Union right of entry requirements; and
 - The duty to consult, co-operate and co-ordinate activities with other duty-holders.
6. To verify the provision and use of the resources and processes referred to in paragraphs 3 to 5 (this makes it clear that 'ensure' means active verification, for example through inspection or auditing processes, that the resources and processes are in place and are being used).

This list is not meant to be exhaustive. There may be other things required for an Officer to show that they have exercised due diligence in the particular circumstances. For example, an Officer could not be said to be exercising due diligence to ensure compliance by the PCBU with its duties under the *Work Health and Safety Act 2012* (SA), if the Officer did not take action to ensure that significant issues with the health and safety performance of a contractor, of which they were aware, were properly addressed.

What is meant by 'reasonable steps' by an Officer?

Officers will only be required to take reasonable steps to ensure that they have the relevant knowledge and understanding or take the relevant decision or action. What is reasonable will depend on the particular circumstances, including the role and the ability to influence by the individual Officer.

Officers may meet the due diligence requirements in some respects by proper reliance on information from and the activities of others, while having more direct involvement in health and safety management and governance in other aspects.

To the extent to which an Officer will seek to rely on others, the Officer must be able to demonstrate the reasonableness of that reliance, which may be demonstrated through the receipt of credible information and advice from appropriate and competent persons.

What will be needed to comply with the definition of due diligence?

An Officer can only comply with their duty by taking an active and inquisitive role in the planning and actioning of health and safety initiatives.

While an Officer does not need to be involved directly in the implementation, they must make the decisions that allow for the appropriate measures to be taken by the PCBU and take reasonable steps to ensure that they are taken.

An Officer must have knowledge of the relevant matters before they are able to make decisions and verify the use of resources and processes.

That knowledge will be technical / functional (knowledge of Work Health and Safety and legal obligations of duty-holders within the PCBU), situational (what is happening and what that means) and strategic (what should the PCBU be doing and why).

That knowledge may need to come from Senior Managers, subject matter experts, Managers and Supervisors involved in the operations. Information will need to be gathered, analysed and reported and advice given from all levels of the business or undertaking.

To enable an Officer to satisfy the requirements of due diligence, the PCBU should have:

1. An appropriate governance structure with the right people in place, who are appropriately authorised and accountable, to enable Work Health and Safety to be properly attended to.

Note: *A formal structure may not be needed in a small business, where the Officers will be involved in the day to day activities and have easy access to the relevant information.*

2. Information gathering and reporting processes to facilitate the flow of Work Health and Safety information (including effective worker consultation and participation arrangements) and advice to the Officers, with the type of information that allows the Officers to understand the hazards and risks, obligations and performance of the organisation, and to make appropriate decisions.
3. A written register or other records of decisions made in the business or undertakings that are likely to affect the whole or a substantial part of such a business or undertaking including:
 - A description of the relevant business or undertaking;
 - The subject matter and purpose of the decision;
 - The reasons for the decision;
 - Why the decision is thought to affect the whole or a substantial part of the business or undertaking;

- Who made the decision and why;
- Who participated in making the decision and the basis of that participation; and
- Other matters considered in reaching the decision.

Note: *Officers are workers. Officers have the same legislative obligations under the Work Health and Safety Act 2012 (SA) as any other worker.*

4. Senior Executives

As Senior Executives are typically deemed to be Officers under the *Work Health and Safety Act 2012 (SA)*, they will be required to fulfill the duties as mentioned in section 4 “Officers”. It is however, the responsibility of Senior Executive to drive a strong Work Health and Safety culture.

Note: *If in doubt about “Officer” status, seek appropriate professional legal advice.*

A strong Work Health and Safety culture is one where workers can see and believe that their leaders are committed to their health and safety. Any input workers provide into the development of systems, policies and procedures is valued and considered, as part of the consultation process.

Effective leaders know the value of health and safety as part of everyday business operations and value the ideas and involvement of their workers.

Workers value a leader who sets clear direction and commits to action. Leaders, who say they are committed to a course of action but fail to adhere to them, send a clear message to their workers: ‘I am telling you the things you want to hear but I don’t intend to follow them’.

The Executive and Senior Leadership team should provide direction to incorporate the Work Health and Safety laws into existing channels of business development such as strategic planning, financial and resource planning, and performance measurement.

Responsibility lies with them to ensure there is an appropriate framework in place which is employed and embedded into business. Senior Leadership must also ensure integration of the Work Health and Safety laws into everyday business through engagement of workers at all levels to mitigate the risks and barriers.

Note: *Senior Executives are workers. Senior Executives have the same legislative obligations under the Work Health and Safety Act 2012 (SA) as any other worker.*

5. Managers

The role as a Manager under the *Work Health and Safety Act 2012* (SA) is to lead, guide and support workers to understand and adhere to all Work Health and Safety policies and procedures as well as supporting and assisting other duty holders to meet their Work Health and Safety legislative obligations. Managers are also a key link between Senior Executives and workers.

Note: *Dependent upon the nature and operation of the organisation, some Managers may also be deemed an “Officer” under the Work Health and Safety Act 2012 (SA) and will need to ensure that they are complying with the duties of an Officer.*

Managers will need to ensure that workers are consulted and involved in any work health or safety matter that will, or may, affect them. Workers must be given the opportunities to raise issues or provide ideas and feedback to you as their Manager or through Health and Safety Representatives and Supervisors.

What do I have to do?

The *Work Health and Safety Act 2012* (SA) requires you, as a Manager to, lead and support workers in their daily work activities.

To ensure you meet your responsibilities under the *Work Health and Safety Act 2012* (SA), you need to ensure that you:

- Understand, promote and comply with health and safety policies and procedures;
- Engage with your workers in an open, honest and meaningful way to ensure they understand what safety standards are expected of them;
- Encourage feedback and communication channels between you and your workers and you and supervisors;
- Ensure that Work Health and Safety personnel and supervisors are made aware of issues or concerns on safety, especially where you or your workers identify hazards or flaws in any operational procedures;
- Demonstrate your commitment to health and safety and model safe work practices to your workers; and
- Put into practice what safety standards you expect workers to follow, the standard you set is the one they will follow.

Managers must promote and foster open lines of communication and consultation with workers. This can be achieved by:

- Creating and nurturing joint partnerships with:
 - Workplace work groups;
 - Health and Safety Representatives and worker representatives; and
 - Supervisors;
- Ensuring that effective consultation processes are built in to the business through its systems, policies and procedures; and

- Engage with workers by being visible and open to feedback and ideas.

If you are already doing these things, then you are already sending a positive message to your workers that health and safety matters to you and that it's important to adhere to policies and procedures.

Note: *Managers are also workers. Managers have the same legislative obligations under the Work Health and Safety Act 2012 (SA) as any other worker.*

The manager's role in health and safety culture

Managers, as a part of the overall leadership team, play a pivotal role in the development and commitment to the health and safety culture within their teams. Workers respond positively to Managers who are open and honest in how they lead and manage them and value loyalty and commitment especially when it involves their health and safety.

Managers should demonstrate, through their words and actions, high standards of health and safety. If a Manager makes it clear that the most important thing to them each day is that they all go home in the same condition as when they arrived, then it sends a powerful message to workers to say "this is the accepted safety standard and it's the way we do things around here". In essence it's essential to put into practice what is preached.

The standard a manager accepts and displays is often the standard that their workers will follow and mirror. A Manager who turns a blind eye to, or encourages short cuts in work practices, does not convey to their workers that they are committed to safe work practices.

To guide and contribute to a stronger health and safety culture, Managers should also consider how they can influence and support workers through:

- Valuing their wellbeing, health and safety as much as productivity and financial outcomes;
- Making your commitment to health and safety visible in the workplace;
- Effectively communicating any messages, concerns or issues on health and safety through active listening and consultation;
- Connecting with your workers to understand the health and safety issues in your workplace;
- Being seen by workers in the workplace, not just in their own office;
- Making the time to visit workers and hear about their ideas, issues and concerns; and
- Ensuring that health and safety is included in any team planning, meetings, discussions and as a part of the day to day business.

6. Supervisors

The role of a Supervisor is to lead, guide and support workers to understand and adhere to all Work Health and Safety policies and procedures. Supervisors are also a key link between managers and workers.

It is a serious responsibility to take on a position of Supervisor in any organisation. It is not always an easy job and there will be times you will have to make the hard decisions and have uneasy conversations.

An organisation's success relies heavily on ensuring all involved have a clear understanding of their responsibilities and accountabilities. This is particularly important when it comes to protecting the health and safety of those in the workforce, be they employees or contractors.

In order to achieve business goals an organisation's leaders and supervisors must 'lead by example' and work within and clearly understand company policies, procedures and standards of work. Strong leadership is the key to an effective safety culture.

Supervisors are key personnel involved in the management of workers and as such have a higher duty of care relating to:

- Knowledge,
- Training,
- Experience, and
- Position related responsibilities.

What do I have to do?

Supervisors control the day-to-day work undertaken and have a duty to ensure:

- Work is undertaken in accordance with existing health and safety policies and procedures;
- All risks to health and safety are effectively controlled;
- Adequate levels of training and supervision are provided for the workgroup, particularly for new or inexperienced workers;
- That all workers are trained to perform their tasks competently;
- A prompt and appropriate response is provided when advised of Work Health and Safety issues;
- Incidents are effectively managed, i.e. ensure the welfare of injured persons and safety of other workers is taken care of, management is notified and the investigation process is commenced;
- The general work area is maintained in a safe condition;
- Plant and equipment is maintained in a safe condition;
- Risk controls are appropriately maintained;
- Implement policies and procedures;
- Consult with management, Health and Safety Representatives and workers;
- Conduct regular workplace inspections;
- Assess risks and implement controls in consultation with the workgroup;
- Suitable personal protective equipment is provided, used and maintained; and
- That any hazards identified are eliminated or minimised as far as is reasonably practicable.

Note: *Supervisors are workers. Supervisors have the same legislative obligations under the Work Health and Safety Act 2012 (SA) as any other worker.*

7. Workers

Under the *Work Health and Safety Act 2012* (SA), a worker is defined as “a person who carries out work in any capacity for a PCBU”, this includes:

- Employees;
- Contractors;
- Contractor employees;
- Labour hire employees;
- Apprentices or trainees;
- Work experience students;
- Volunteers; and
- Visitors.

Workers have a duty and obligation to:

- Take reasonable care that his or her acts or omissions (actions or words) do not adversely affect the health and safety of themselves and other persons;
- Comply, so far as the worker is reasonably able, with any reasonable instruction designed to protect their health and safety and that of any other persons while at work; and
- Co-operate with any reasonable policy or procedure relating to health or safety at the workplace that they have been notified of.

Examples of how workers can meet their duties and obligations are listed below, note this list is not exhaustive:

- Report any identified hazards, incidents or injuries that they become aware of;
- Only undertake tasks that they have been trained and deemed competent in;
- Only operate plant and equipment they have a licence (where required) for and or been deemed competent to operate;
- Wear Personal Protective Equipment (PPE) provided by a company for their protection and maintain in good condition;
- Participate in Rehabilitation and Return To Work (RRTW) programs designed to assist in their safe return to normal work duties; and
- Actively contribute in the daily business operations to improve Work Health and Safety conditions in the workplace.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

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ADDITIONAL INFORMATION

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REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Corporations Act 2001 (SA)

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Organisational Charts Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

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Organisational Charts Guide

AIM

The aim of this Guidance Material is to provide you with an example of how to set out an organisational (org) chart for your operation.

Forward

As each operation is different in its organisational structure, you will need to ensure that the organisational chart for your operation accurately reflects your structure and that it is reviewed as part of your safety management systems review or sooner should there be any changes in personnel.

It is important that the organisational chart you develop is clear and easily understood by all persons. This guide provides you with several examples of how you could set out the organisational chart for your operation.

Legislative requirements

The *Work Health and Safety Regulations 2012* (SA), Regulation 622 (1, d) states that the Safety Management System for a mine must set out:

d) the management structure for the management of work health and safety at the mine, including—

- (i) arrangements for filling temporary and permanent vacancies; and
- (ii) requirements relating to acting positions in the structure; and
- (iii) the competency requirements for positions in the structure.

Note: *A simple and effective way of complying with the requirements of 622 (1,d,i,ii and iii) is to ensure that position descriptions developed for specific roles include the requirements for filling temporary and acting positions and the competency requirements for each position.*

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

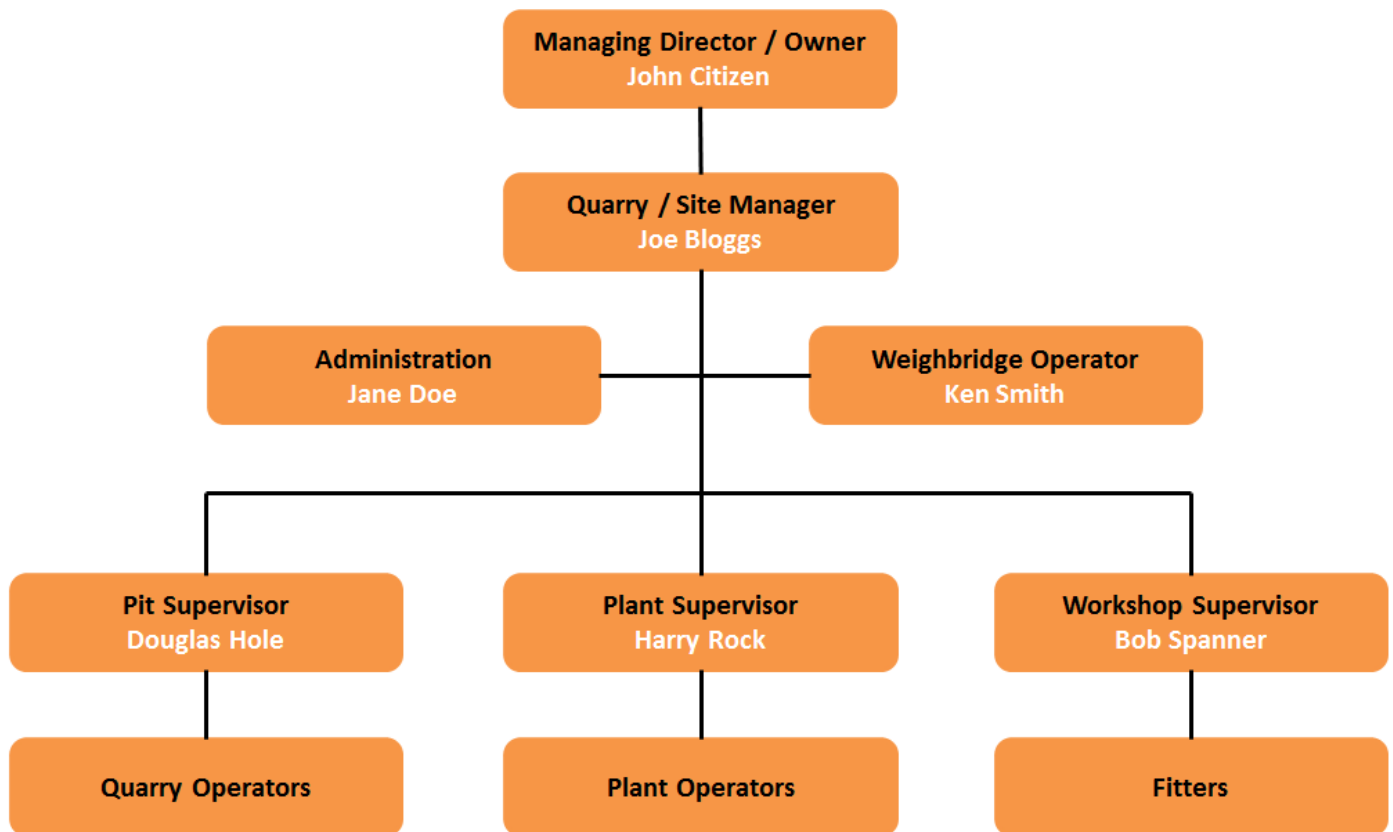
Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

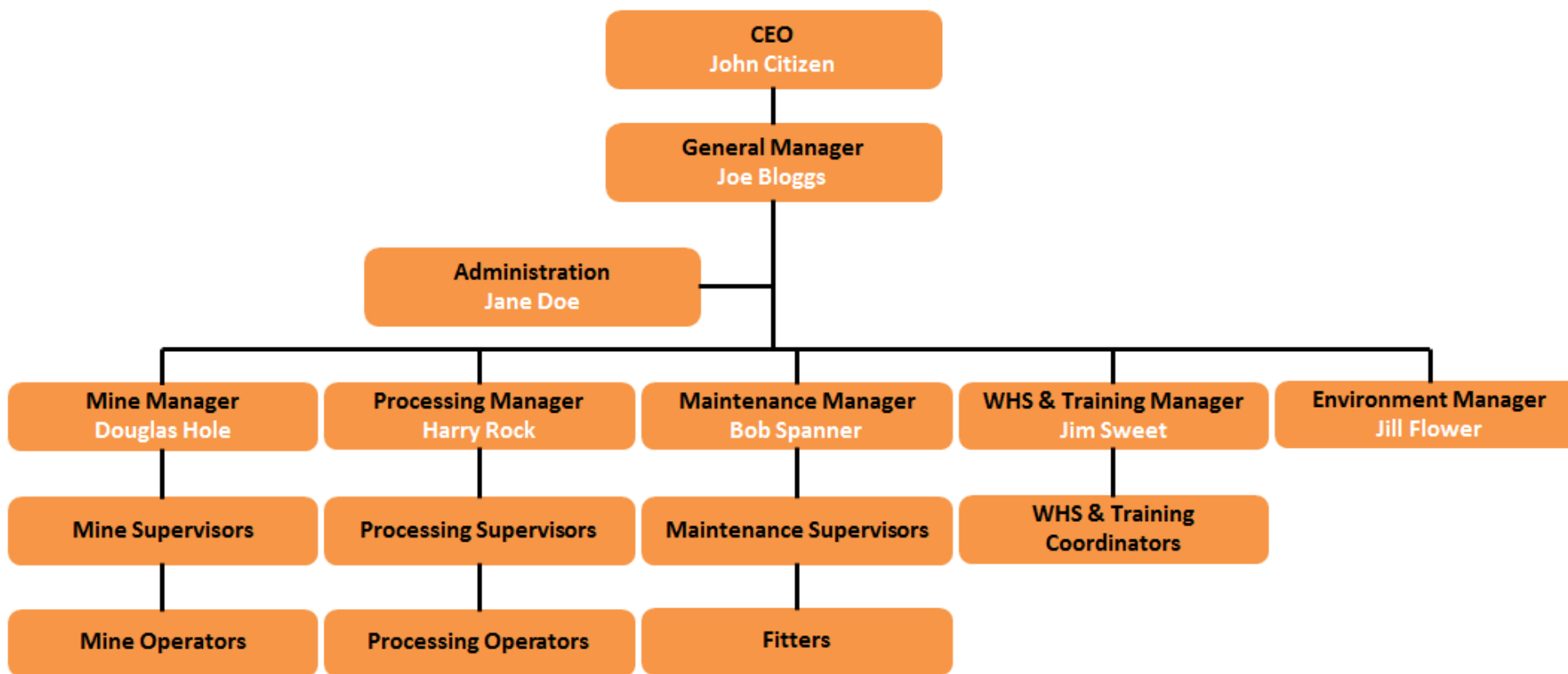
Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Example 1



Example 2



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Position Description Template

Name:	<i>Joe Bloggs</i>	Date:	<i>11 / 11 / 1111</i>
Position Title:	<i>Loader Operator</i>		
Responsible To:	<i>Quarry Supervisor</i>		
Subordinates Reporting to Position	<i>Nil</i>		
Key Responsibilities	Key Results Area	Key Performance Indicators	
<i>Your responsibilities may include other tasks which your Manager may instruct you to undertake from time to time.</i>			
Company Specified	<ul style="list-style-type: none"> Comply with the <i>(insert company name)</i> code of conduct, policies and procedures at all times. Adopt and promote the <i>(insert company name)</i> core value principles. Actively support the Site Key Performance Indicators including; <ul style="list-style-type: none"> Safety Production Cash flow 	<ul style="list-style-type: none"> Adhere to the <i>(insert company name)</i> code of conduct, policies and procedures at all times. Demonstrate behaviour alike the <i>(insert company name)</i> core value principles at all times. Maintain focus and perform work according to the Site Key Performance Indicators. 	
Safety and Compliance	<ul style="list-style-type: none"> Comply with the systems of work provided. Identify and report hazards. Conduct pre-task risk assessments prior to commencing work. Stop work if the work is not able to be conducted safely. Wear and maintain personal protective equipment. Immediately report all incidents, injuries and hazards. Assist fellow team members to work safely. Present Fit for Work. Actively partake in safety meetings and contribute to the continuous safety improvement. 	<ul style="list-style-type: none"> Report all incidents, injuries and hazards immediately to your Supervisor. Perform pre-start checks prior to each task being undertaken and effectively mitigate health and safety hazards. Participate in workplace inspections. 	
Safety Role for Workers	<p>In relation to Principal Mining Hazards, the worker shall contribute to:</p> <ul style="list-style-type: none"> The identification of Principal Mining Hazards that are relevant to the work that the workers are or will be carrying out; The consideration of control measures for risks associated with Principal Mining Hazards at the mine; and The reviewing of control measures. 	<ul style="list-style-type: none"> Worker has signed and dated the risk assessment record where they have been consulted and given the opportunity to contribute. 	
Performance	<ul style="list-style-type: none"> Maintain constant feed to crushing plant. Maintain accurate loading records. Ensure haul roads are maintained. Maintain good housekeeping of the loader and the work environment. 	<ul style="list-style-type: none"> Optimum crusher through put achieved. Accurate daily work logs completed. Loader and work environment housekeeping maintained in good condition. 	

Position Description Template

Teamwork	<ul style="list-style-type: none"> • Work cooperatively with colleagues in a spirit of support and respect of others. • Assist fellow team members to work safely. • Actively participate in meetings to coordinate activities and improve safety. • Perform detailed shift handovers to effect communication regarding work progress, emerging issues and priorities. • Share your knowledge and skills with colleagues to build a learning environment. • Develop skills and formal competencies for new personnel. • Be readily availability to work when called to support operational requirements. 	<ul style="list-style-type: none"> • Perform detailed handovers including work progress, emerging issues and priorities. • Attend and actively participate in meetings to coordinate activities and improve safety. • Develop skills and formal competencies for new personnel according to Safe Operating Procedures. • Attend work when scheduled for additional hours and be readily available to work when called to support operational requirements. • Undertake and assist team members with tasks and responsibilities outside your normal scope of work.
Communication	<ul style="list-style-type: none"> • Keep your Supervisor informed of daily work progress and emerging issues. • Complete and sign your daily time sheets. • Liaise with other departments to ensure efficient continuous operation as directed by the Supervisor. • Communicate with sales vehicles. 	<ul style="list-style-type: none"> • Immediately inform the Supervisors of breakdown and emerging issues. • Complete detailed shift and operational log to company standard.
Leadership	Nil	•
Qualifications, Capabilities and Knowledge		
Essential Qualifications, Capabilities and Knowledge	<ul style="list-style-type: none"> • Minimum Year 10 High School • Sound communication skills, oral and written 	
Desirable Qualifications, Capabilities and Knowledge	<ul style="list-style-type: none"> • Previous loader experience in a quarry environment • Loader Operators qualification • First Aid 	
Competency Requirements	<ul style="list-style-type: none"> • (insert name of quarry/mine) site induction • Sales Loader • Crusher Feeding • Isolations • Etc. 	

Employee Signature:

Date:

Manager Signature:

Date:



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Workplace Consultation and Communication Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on how to effectively consult and communicate with workers who carry out work for the PCBU.

Forward

Consultation is a legal requirement under the *Work Health and Safety Act 2012* (SA) and *Work Health and Safety Regulations 2012* (SA), and an essential part of managing health and safety risks.

A healthy and safe workplace is more easily achieved when workers at all levels within the business talk to each other about potential issues/hazards, and work together to find solutions.

By drawing on their knowledge of the workplace and work practices, workers can provide valuable input on work hazards and the effectiveness of policies and procedures.

Consultation between Officers, Senior Management, Work Health and Safety personnel, Managers, Health and Safety Representatives (HSRs) and workers on health and safety matters, can result in healthier and safer workplaces, improved issue or decision ownership, effective and robust outcomes, stronger commitment by everyone to implementing decisions and greater cooperation and trust between all levels of the business.

In situations where you share responsibility for health and safety with another PCBU, the requirement to consult, co-operate and co-ordinate activities with other duty holders will help address any gaps in managing health and safety risks that often occur when:

- There is a lack of understanding of how the activities of each person may add to the hazards and risks to which others may be exposed;
- Duty holders assume that someone else is taking care of the health and safety matter; and
- The person who takes action is not the best person to do so.

The outcome of consulting and communicating activities with other duty holders is that you each understand how your activities may impact on health and safety and that the actions you each take to control risks are complementary.

1. When is consultation required?

Many organisational decisions or actions have health and safety consequences for workers. For example, introducing new equipment into the workplace may affect the tasks your workers carry out, the timeframes for doing work, how they interact with each other and the environment in which they work.

Under the *Work Health and Safety Act 2012* (SA), consultation is required:

- When identifying hazards and assessing risks arising from work;
- Making decisions about ways to eliminate or minimise those risks;
- Making decisions about the adequacy of facilities for the welfare of workers;
- Proposing changes that may affect the health or safety of workers (change of equipment or work processes);
- Making decisions about the procedures for resolving health or safety issues;
- Monitoring the health of workers or workplace conditions, information and training or consultation with workers; and
- When carrying out any other activity prescribed by the *Work Health and Safety Regulations 2012* (SA).

However, it may be useful to also consult with workers about matters that are not listed above, for example when conducting investigations into incidents or 'near misses'.

Regular consultation is better than only consulting on a case-by-case basis as issues arise because it allows you to identify and fix potential problems early.

1.1. Managing Risks

Consultation is required when identifying hazards, assessing risks and deciding on measures to control those risks.

In deciding how to control risks, you must consult with your workers who will be affected by this decision, either directly or through their Health and Safety Representative. Their knowledge and experience may help you identify hazards and choose practical and effective control measures.

Regularly walking around the workplace, talking to your workers and observing how things are done will also help you identify hazards.

Conducting a survey of your workers can provide valuable information about work-related health issues, such as workplace bullying, stress, as well as muscular aches and pains that can signal potential hazards.

Workers and their Health and Safety Representatives may need access to information such as technical guidance about workplace hazards and risks (plant, equipment and substances).

The *Work Health and Safety Act 2012* (SA), requires that you allow any Health and Safety Representative for a work group to have access to information you have relating to hazards (including associated risks) affecting workers in the work group and also any information about the health and safety of workers in the work group.

This does not extend access to any personal or medical information concerning a worker without the worker's consent.

1.2. Deciding on welfare facilities

Facilities are things provided for the welfare of workers, such as toilets, drinking water, washing facilities, dining areas, change rooms, personal storage and first aid.

You must consult your workers when making decisions about what facilities are needed (for example, the number and location of toilets), taking into consideration the number and composition of your workforce, the type of work your workers do and the size and location of your workplace.

The consultation should also cover things, such as access, cleaning and maintenance of the facilities.

If the facilities are already provided at the workplace, you should consult your workers and their Health and Safety Representatives when there are any changes that may affect the adequacy of the facilities. This will help you determine if you need to change or expand your facilities.

1.3. Making changes

You must consult your workers when planning to make changes that may affect their work health and safety, for example when:

- Changing work systems (work rosters, work procedures or the work environment);
- Developing a new product or planning a new project;
- Purchasing new or used equipment or using new substances; and
- Restructuring the business.

1.4. Developing procedures

A procedure sets out the steps to be followed for work activities. You must consult with affected workers when developing procedures for:

- Resolving work health and safety issues;

- Consulting with workers on work health and safety;
- Monitoring workers' health and workplace conditions; and
- Providing information and training.

Procedures should be in writing to provide clarity and certainty at the workplace and assist in demonstrating compliance. They should clearly set out the role of Health and Safety Representatives, and any other parties involved in the activity.

The procedures should be easily accessible, for example by placing them on noticeboards, in equipment and intranet sites.

If issue resolution procedures are agreed to, the *Work Health and Safety Regulations 2012* (SA) include minimum requirements that must be complied with, including that these procedures are set out in writing and communicated to all workers to whom the procedure applies.

2. What is effective consultation?

Consultation is a two-way exchange of information between you and your workers where you:

- Talk to each other about health and safety matters;
- Listen to workers concerns and raise your concerns;
- Seek and share views and information; and
- Consider what your workers say before you make decisions.

It should be seen as an opportunity to add value to the Persons Conducting a Business or Undertaking decision-making processes.

Management commitment and open communication between managers and workers is important in achieving effective consultation. Your workers are more likely to engage in consultation when their knowledge and ideas are actively sought and any concerns about health and safety are taken seriously.

Consultation does not mean telling your workers about a health and safety decision or action after it has been taken. Workers should be encouraged to:

- Ask questions about health and safety;
- Raise concerns and report problems;
- Make safety recommendations; and
- Be part of the problem solving process.

While consultation may not result in agreement, this should be the objective as it will make it more likely that the decisions are effective and will be actively supported.

The Safety Rehabilitation and Compensation Commission (SRCC) has adopted a working definition of what constitutes consultation from the Australian Industrial Relations Commission case, *Australian Workers' Union v Campbell Mushrooms Pty Ltd* 1183/96 Print N4825 (1996). Consultation, as explored in that case can be summarised as:

Consultation means to appropriately inform workers, inviting and considering their response prior to a decision being made. Workers' opinions should not be assumed. Sufficient action must be taken to secure workers' responses and give their views proper attention.

Consultation requires more than a mere exchange of information. Workers must be able to contribute to the decision-making process, not only in appearance but in fact.

3. Steps to effective consultation

The following steps may assist you in determining how to approach consultation and communication:

3.1. Inform

Your workforce will be more aware of risks and how they are controlled.

Success can be achieved by:

- Providing information during workplace induction;
- Carrying out regular workplace briefings;
- Using an interpreter and/or translation service if necessary; and
- Involving workers in all matters which affect their health and safety at work.

3.2. Instruction and training

Your workforce will understand how to do their job in a way that does not put themselves, their colleagues or others at risk.

Success can be achieved by:

- Demonstrating your commitment to training, so that your workers recognise the importance of training. You may also need to appoint someone competent to conduct the training for you.
- Ensuring adequate supervision is provided. Supervision is particularly vital when workers are new, inexperienced or young. Even experienced workers can become complacent and take shortcuts.

3.3. Health and Safety Representatives (HSRs)

Health and Safety Representatives and other worker representatives for health and safety can play a key role in getting people on board with new initiatives. They represent the interests and concerns of their fellow workers and provide valuable insight, skills and resources.

Success can be achieved by:

- Giving the Health and Safety Representatives full support and access to necessary equipment and facilities;
- Understanding the role and function of the Health and Safety Representatives and other representatives; and
- Involving Health and Safety Representatives as a potential champion to assist in the promotion of Work Health and Safety in your team.

3.4. Consulting

As workers are often the most aware of health and safety issues and solutions, it makes sense to listen to them. If your workers feel their ideas are valued, they will generally have a stronger commitment to tackling such problems.

Success can be achieved by:

- Conducting regular scheduled meetings such as daily prestart meetings;
- Conducting toolbox talks;
- Engaging in face-to-face discussions; and
- Setting up focus groups to deal with specific issues.

Other ways could include:

- Undertaking worker surveys;
- Displaying information on noticeboards;
- Recording and responding to Work Health and Safety issues or concerns raised by workers; and
- Sharing information and good practice through memos, newsletters and updates.

3.5. Joint problem solving

Including workers in the problem solving process will assist to improve health and safety standards and increase productivity, efficiency and motivation throughout the workforce.

It will also boost co-operation and trust between workers, managers and senior leaders.

Success can be achieved by:

- Involving workers and their representatives in tackling health and safety issues to create a genuine and valuable partnership; and
- Allowing concerns and ideas to be freely shared and acted upon as the whole workforce aims for a healthier and safer environment.

4. To what extent should you consult?

You must consult on health and safety matters so far as is reasonably practicable with workers who carry out work for you and who are (or are likely to be) directly affected.

This includes consulting with your contractors and their workers and volunteers (if any) about health and safety decisions that directly affect them and which you influence or control.

Consultation that is 'reasonably practicable' is both possible and reasonable in the particular circumstances. What is reasonably practicable will depend on factors, such as the:

- Size and structure of the business;
- Nature of the work that is carried out;
- Nature and severity of the particular hazard or risk;
- Nature of the decision or action, including the urgency to make a decision or take action;
- Availability of the relevant workers and any Health and Safety Representatives;
- Work arrangements, such as shift work and remote work; and
- Characteristics of the workers, including languages spoken and literacy levels.

The aim of consultation should be to ensure that you have sufficient information to make well-informed decisions and that the workers who may be affected are given a reasonable opportunity to provide their views and understand the reasons for the decisions.

You are not expected to do the impossible, but are required to take a proactive and sensible approach to consultation. For example, an urgent response to an immediate risk may necessarily limit the extent of consultation in some circumstances.

It may also not be reasonably practicable to consult with workers who are on extended leave. However, it would be appropriate to ensure that these workers are kept informed about any matters that may affect their health and safety when they return to work.

5. Do I need to document consultation?

Consultation with workers and with other duty holders does not have to be documented unless specifically required under the *Work Health and Safety Regulations 2012* (SA). However, it is recommended that you keep records to demonstrate compliance with consultation requirements. Records of consultation may also assist the risk management process and make disputes less likely.

The records should include any outcomes of discussions. The records can be brief and simple, and cover:

- Who is involved;
- What the safety matter is;
- What decision has been made;
- Who is to take action and by when; and
- When the action has been completed.

6. Consulting with other duty holders

If you have contractors or on-hire workers as part of your workforce you share a duty of care to these workers as well as consultation duties with the business that provides them. You should consult, co-operate and co-ordinate activities with the contractor or on-hire firm to develop your shared consultation arrangements with the workers.

In doing this you should consider the types of issues that may arise where you would need to consult the contractor or on-hire firm and their workers.

For example, you may propose to change the work carried out by contractors. This may involve changing the equipment, substances or materials used in the production process or the way tasks are carried out. You should ask:

- How should I inform and discuss proposed changes with the contractors' on-hire or contractor firm?
- How should we both co-ordinate consultation with the affected workers?
- How should we each respond to a safety issue raised by one or more of the contractors or to a request from the workers to be represented by a Health and Safety Representative?

6.1. When must you consult with other duty holders?

You should commence consultation with other duty holders when you become aware they are or will be involved in the work. This will usually be apparent from the circumstances, through contractual arrangements, presence on site or the need for others to be involved in the work.

You should identify who else will be involved in the work, make contact with them and commence discussions as soon as they are reasonably able to do so. This may occur as part of contractual negotiations, or discussions when you are engaged to carry out the work, or when you engage another business to carry out work for your business or undertaking.

Consultation should commence during the planning of the work, to ensure that health and safety measures are identified and implemented from the start. A need for further consultation may arise when circumstances change over the period of the work, including the work environment and the people involved in the work.

Consultation with other duty holders should be an ongoing process throughout the time in which you are involved in the same work and share the same duty.

6.2. What is meant by consulting with other duty holders?

The objective of consultation is to make sure everyone associated with the work has a shared understanding of what the risks are, which workers are affected and how the risks will be controlled. The exchange of information will allow the duty holders to work together to plan and manage health and safety.

The consultation should include:

- What each will be doing, how, when and where and what plant or substances may be used;
- Who has control or influence over aspects of the work or the environment in which the work is being undertaken;
- Ways in which the activities of each duty holder may affect the work environment;
- Ways in which the activities of each duty holder may affect what others do;
- Identifying the workers that are or will be involved in the activity and who else may be affected by the activity;
- What procedures or arrangements may be in place for the consultation and representation of workers, and for issue resolution;
- What information may be needed by another duty holder for health and safety purposes;
- What each knows about the hazards and risks associated with their activity;
- Whether the activities of others may introduce or increase hazards or risks;
- What each will be providing for health and safety, particularly for controlling risks; and
- What further consultation or communication may be required to monitor health and safety or to identify any changes in the work or environment.

This consultation will determine which health and safety duties are shared and what each person needs to do to co-operate and co-ordinate activities with each other to comply with their health and safety duty.

7. Barriers to effective consultation

There are many barriers to how we communicate and consult with each other in the workplace. Finding the right time and delivering messages in the right way can be a challenge.

Managers should establish a relationship with their workers that encourage open and honest discussion and mutual trust.

Consultation often fails due to:

- A lack of clarity in the message;
- The absence of emotional resonance in your message;
- Inaccurate targeting;
- Poor timing; or
- Not providing genuine feedback.

7.1. How to reduce barriers through communication

The tips listed below will assist you in reducing the barriers to effective consultation.

When communicating with workers and others ensure that you:

- Engage people on an emotional level;
- Provide clear messages with concrete examples to help people focus their energies;
- Think about what you say and how you say it (is what you are saying aligned with what you are feeling and thinking?);
- Back up written material with verbal communication;
- Check the tone of the communication (edit, edit and edit again);
- Provide prompt feedback, some news is better than no news; and
- Let people know the status of what is happening, you are the key in communicating change, workers look to you to see if there is real acceptance.

7.2. How can I contribute to improving and promoting communication?

Managers often have many conflicting priorities on their time. They should however always make time to listen to their workers and be aware of the importance of establishing open and honest communication channels to workers. On any normal working day we communicate on a number of different levels. We:

- Talk to other team members;
- Seek support and guidance from friends and other colleagues;
- Discuss work practices and other issues with your managers;
- Use the internet and intranet to gain updates and information; and
- Use an assorted number of social media options to stay in touch.

To ensure that communication is effective in your workplace, you should use all the available and established channels to provide your ideas and concerns about health and safety in your workplace.

Managers can use the following suggestions as ways to ensure they are promoting and contributing to effective communication:

- Encourage worker contribution at meetings;
- Access and seek information and raise awareness on matters that may affect workers;
- Use emails to clarify, and provide a two way communication approach;
- Establish an open and constructive approach to talking to your workers; and
- Consider the barriers to communication in remote and isolated work locations (e.g. shift work, working on your own, isolated by distance or team support, working from home) make regular contact with workers.

Frequent and informal communications between workers and management on safety issues is critical for improved performance. These behaviours demonstrate a managers concern for safety and provide opportunities for early recognition of hazards.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

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Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Work Health and Safety Consultation, Co-operation and Co-ordination, Code of Practice (SafeWork SA)

Mining and Quarrying
Occupational Health and
Safety Committee
Level 2, Torrens Building
220 Victoria Square
Adelaide SA 5000

Telephone (08) 8204 9842
www.maqohsc.sa.gov.au



The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

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Adelaide SA 5000

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Email: maqohsc@sa.gov.au

Website: www.maqohsc.sa.gov.au

Insert Company Logo
Here

Pre-Shift Meeting Template

Manager / Supervisor		Date	/	/	Time	
Health and Safety, Environment, Community and Quality (HSECQ) Rating for previous shift: (circle one)						
GREEN		AMBER		RED		
GREEN = Zero incidents and good safety improvements.		AMBER = Zero incidents and no safety improvements.		RED = Incident occurred.		
Incidents on previous shift:						
Hazards identified / reported / fixed in previous shift (collect hazard reports)						
What were the HSECQ improvements yesterday?						
What are we going to do today to improve HSECQ?					Responsible person	
HSECQ Notices, Safety Focus, New / Reviewed Procedures, Other						

Insert Company Logo
Here

Pre-Shift Meeting Template

Contractors / Visitors on Site

Name	Contractor Company	Reason on Site

Tasks requiring Task Hazard Analysis (THA) / Job Hazard Analysis (JSA)

Attendees:

Name	Signature	Position



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Toolbox Meeting Guide

Promoting Work Health and Safety in the Workplace

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220 Victoria Square

Adelaide SA 5000

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Email: maqohsc@sa.gov.au

Website: www.maqohsc.sa.gov.au

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Toolbox Meeting Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on toolbox meetings.

Forward

As stated in the MAQOHSC Workplace Consultation and Communication Guide, Persons Conducting a Business or Undertaking (PCBUs) have a duty to consult with workers.

Section 47 of the *Work Health and Safety Act 2012* (SA) states: *A person conducting a business or undertaking must consult, so far as is reasonably practicable, with workers who carry out work for the business or undertaking and who are (or are likely to be) directly affected by a health and safety matter.*

One simple and effective way to ensure you consult with workers is to conduct regular scheduled toolbox meetings.

1. What is a toolbox meeting?

Toolbox meetings are a way for information to be provided to workers, and for workers to have their say about hazards / controls, incidents / accidents, work processes and company procedures.

Toolbox meetings also help to create an environment to discuss task specific or timely safety communications, identify problems or highlight specific safety concerns / risks.

2. Structure of a toolbox meeting

Toolbox meetings should be held on a regular basis and should take no more than 10-15 minutes. The frequency of meetings will depend on the size, nature and location of your site. Some hazardous activities could require daily meetings, while often a weekly / fortnightly meeting will suffice. Toolbox meetings should be short and to the point.

3. What information do we include?

Toolbox meetings can be used to inform and consult with workers on a number of different topics. This may include, but is not limited to:

- Changes to policies and procedures;
- Identification of new hazards (including Principal Mining Hazards) and review of existing hazards;
- Implementation or review of control measures;
- Accident and incident data (note: important not to identify persons involved in accidents or incidents);
- Development or review of work processes;
- Development or review of the Safety Management System; and
- Development or review of Emergency Plans.

4. Records of toolbox meetings

Details of toolbox meetings must be recorded and maintained. Toolbox meeting minutes should include, date, time, location, topic/s, follow up items and attendees names and signatures.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

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SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

Meeting held at: _____ Date: _____

Meeting conducted by: _____ Signed: _____

HSR: _____ Signed: _____

Issues / Topics to be covered:

1. _____
2. _____
3. _____
4. _____

Other issues addressed:

1. _____
2. _____
3. _____
4. _____

Action Required:

Action	By Whom	Timeframe

Attendance: (all participants to print name and sign)

- | | |
|-----------|---------------|
| 1. _____ | Signed: _____ |
| 2. _____ | Signed: _____ |
| 3. _____ | Signed: _____ |
| 4. _____ | Signed: _____ |
| 5. _____ | Signed: _____ |
| 6. _____ | Signed: _____ |
| 7. _____ | Signed: _____ |
| 8. _____ | Signed: _____ |
| 9. _____ | Signed: _____ |
| 10. _____ | Signed: _____ |

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Email: maqohsc@sa.gov.au

Website: www.maqohsc.sa.gov.au

Insert Company Logo
Here

Document Communique Form Template

Document Awareness Communique

Document Number: Document Title: Date Issued: xx / xx / 20xx

This form is used to communicate current best work practices to personnel, where changes to current practices have been implemented, or it has been identified that standards are not followed in accordance with documented procedures or work instructions.

Facilitators Name: Date: / / 20

Signature: Time:

Department: Crew:

PLEASE ENSURE ALL COLUMNS ARE COMPLETED NEATLY AND CLEARLY

I **DO** understand and have been suitably trained to comply with the above document (Please complete details and sign below)

	First Name	Surname	Signature
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

I **DO NOT** understand the above document and require further training (Please complete details and sign below)

	First Name	Surname	Signature
1.			
2.			
3.			
4.			
5.			

Forward this completed form to Site Administration for recording

Electronic documents are controlled documents
Printed versions are uncontrolled and valid only at time of printing



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Contractor and Visitor Management Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

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Contractor and Visitor Management Guide

AIM

Our Contractor Management Program will allow *(insert Mine Operator name)* to control all visitors to the site, including their plant and equipment. It will ensure that visitors and contractors are suitably trained and equipped, and that their plant and equipment is safe and fit for purpose for the work being carried out.

1. WHAT

All persons visiting the site, whether for private or commercial reasons, will be controlled by our Contractor Management Program. This will be achieved by ensuring that all persons are made aware of their health and safety requirements, including equipment standards.

Each category of visitor / contractor will be controlled according to the level of risk they will be exposed to on site.

2. WHO

People who enter the site and do not go past the _____ will be controlled by way of our entry signs and are not required to complete any form of induction.

If people proceed past the _____, they will be managed depending on their category. Table 1 indicates who will be able to complete the various types of induction.

3. HOW

Each contractor / visitor will be assessed against the following table to determine the type of induction required. If the company representative believes the contractor / visitor may be exposed to a higher risk category, then nothing shall prevent them from insisting that the contractor / visitor complete a higher category of induction. Contractors are required to participate in the consultation process.

VISITOR TYPE	WHO (example)	TYPE OF CONTROL	BY WHO	FREQUENCY	FORM
Low risk	<ul style="list-style-type: none"> Visitors Salespersons Industry representatives Government Officers Office equipment, cleaners and catering contractors 	<ul style="list-style-type: none"> Site rules (verbal) Stay in company of employee Personal Protective Equipment (PPE) Visitors sign in register Other 	Anyone trained	Per visit	Visitors Induction
				Per visit	Visitors sign in register
Medium risk	<ul style="list-style-type: none"> Trucking contractors Electrician Boilermaker 	<ul style="list-style-type: none"> Site induction Evidence of competency Insurances Personal Protective Equipment (PPE) Check equipment Copy of Safe Work Method Statements Other 	Area Manager e.g. Maintenance Manager or trained person	Once a year	Contractor / Visitor Induction - Section 1
High risk	<ul style="list-style-type: none"> Major contractors Drilling / Blasting Contract crushing Project work Any activity considered high risk 	<ul style="list-style-type: none"> As per medium risk, plus Approved Contractor Safety Management Plan (if required) Other 	Senior most person in management structure	Per project	Contractor / Visitor Induction – Section 1 and 2

Table 1: Visitor risk categories

4. WHEN

Each person entering the site will be controlled by the Induction Program suitable to their risk, at a frequency according to the table above. A refresher course will be conducted _____ by _____ to notify contractors / visitors of any changes to the Mine Safety Management Plan.

Prior to engaging a contractor of medium or high risk they will undergo a Contractor Pre-work Assessment. Contractors on site will be inspected as per Contractor Management Procedure.

5. ACTION

If, during the course of completing an induction, the contractor / visitor brings to the attention of the company representative any additional hazards or issues, the company representative will ensure that a Hazard Report Form is completed and submitted.

6. DOCUMENT CONTROL

All inductions completed under medium risk and high risk categories will be signed by the contractor / visitor and the _____ will transfer their name onto the Induction Register.

Each person being inducted will keep a copy of the site safety rules. The Induction Form will be filed within the Induction Register _____.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

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Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Act 2012 (SA) Section 19 - Primary duty of care

Work Health and Safety Regulations 2012 (SA) Regulation 39 – Provision of information, training and instruction

Work Health and Safety Variation Regulations 2013 (SA) Regulation 622(f)

***(insert company name)* – Visitor Induction Template**

Welcome to *(insert site name)*

While you are visiting our site we are responsible for your health and safety. These site rules summarise the work practices that apply to our site. The nominated company representative will read through this document with you and will discuss any issues that arise. Visitors will be directly supervised at all times whilst on site.

- The person responsible for your supervision is_____.
- You must sign in and out every time you visit this site.
- First aid kits are located at_____.
- Trained first aiders are listed on notice boards located at_____.
- In the case of an emergency, follow the emergency procedure and all instructions from your supervisor.
- Emergency assembly points are located at_____.
- You can only visit those areas as directed by the company representative responsible for your supervision.
- You must use personnel protective equipment (PPE) as indicated by signs on site or as directed by the company representative.
- You must report to your nominated company representative when you arrive on site.
- Please be aware of mobile plant at all times.
- All traffic will abide by the site speed limit, which is_____km/h.
- If you see any hazards on site you are required to report them immediately to the company representative responsible for your supervision and record them on a Hazard Report Form.
- You may be selected to undergo fitness for work testing during your visit. This includes breath alcohol, drug screen and hydration testing.

Do you have any illnesses that may affect you during your visit?

Are you taking any medications that may affect you during your visit?

I have read and understood the above rules and agree to comply with these conditions.

Name:_____Signature:_____Date: / /

Visitors Sign in Register Template

Date	Name	Company	Person visiting and/or task to perform	No. hours worked prior	Time in (arrive)	Time out (depart)	Signature on departure

Contractor and Visitor Induction Checklist

This induction is to be completed by any contractor or visitor that is considered a medium or high risk. This form is to be completed by an authorised company representative.

SECTION 1

To be completed by **medium risk** **high risk** (circle risk category)

Contractor / visitor name	
Name of company or trade name	
Contact details	
Date of induction	
Person completing induction	
Type of work being carried out	

The following items will be discussed with the new contractor / visitor:

You need to check: (✓ or x)

- The contractor / visitor will receive a copy of the site rules ☐
- Isolation procedure ☐
- Drug and alcohol policy ☐
- Traffic controls and restrictions ☐
- Reporting of accidents and incidents ☐
- Reporting of hazards ☐
- Relevant Safe Work Method Statements (SWMS) ☐
- Relevant Safety Data Sheets(SDS) ☐
- Other issues _____ ☐

Operating equipment

Where a contractor is bringing equipment on to site, a competent authorised company representative will inspect the equipment the first time it arrives to ensure that it meets the company's equipment standards. The competent authorised company representative will conduct regular inspections to confirm that the equipment is maintained to this standard.

You need to check: (✓ or x)

Necessary licences / permits are held (record details) ☐

Have power tools been checked recently (tagged by electrician)? ☐

_____ has assessed operator to be competent ☐

Are flashback arrestors fitted to oxy-acetylene equipment? ☐

Does mobile plant conform to site Standards? ☐

Are first aid facilities available for the full duration of the job? ☐

- Roll over protection system (ROPs) Canopy (except for road trucks, drills, excavator)?
- All safety guards fitted?
- Seatbelt fitted and in good condition?
- Fire extinguisher fitted and charged?
- Reverse alarm operational?
- All vehicle systems operational?

Are compliant fire-fighting facilities available? ☐

Has entry / exit to the site been agreed (after hours work)? ☐

Has an assessment of the hazards associated with the work been carried out? ☐

Other issues _____ ☐

Safe Work Method Statements provided? ☐

Safety Data Sheets provided? ☐

I have reviewed and discussed the material in section 1 of this *Contractor and Visitor Induction* with the company representative.

Signed: Contractor / visitor _____ **Date** _____

Signed: Authorised company representative _____ **Date** _____

SECTION 2

To be completed by **medium and high risk only**

Where a contractor is conducting work that is classified as a medium or high risk due to:

- The complexity and size of the project;
- The requirement for increased supervision; and
- The fact that the work requires greater technical knowledge.

Senior management will require the contractor to prepare and provide a Contractor Safety Management Plan of their own, including an assessment of risks associated with the work to be carried out by the contractor at the site.

I have supplied to _____ a copy of our Contractor Safety Management Plan and Safe Work Method Statements. These documents include an assessment of the risks associated with the work to be carried out.

Signed Contractor: _____ **Date** _____

I have reviewed the Contractor Safety Management Plan using the Contractor Safety Management Assessment Form and Safe Work Method Statements and found them to be acceptable.

Signed Senior Manager on site: _____ **Date** _____

Mining and Quarrying
Occupational Health and
Safety Committee
Level 2, Torrens Building
220 Victoria Square
Adelaide SA 5000

Telephone (08) 8204 9842
www.maqohsc.sa.gov.au



(insert company name) – Visitor Induction Template

Welcome to *(insert site name)*

While you are visiting our site we are responsible for your health and safety. These site rules summarise the work practices that apply to our site. The nominated company representative will read through this document with you and will discuss any issues that arise. Visitors will be directly supervised at all times whilst on site.

The person responsible for your supervision is _____.

You must sign in and out every time you visit this site.

First aid kits are located at _____.

Trained first aiders are listed on notice boards located at _____.

In the case of an emergency, follow the emergency procedure and all instructions from your supervisor.

Emergency assembly points are located at _____.

You can only visit those areas as directed by the company representative responsible for your supervision.

You must use personnel protective equipment (PPE) as indicated by signs on site or as directed by the company representative.

You must report to your nominated company representative when you arrive on site.

Please be aware of mobile plant at all times.

All traffic will abide by the site speed limit, which is _____ km/h.

If you see any hazards on site you are required to report them immediately to the company representative responsible for your supervision and record them on a Hazard Report Form.

You may be selected to undergo fitness for work testing during your visit. This includes breath alcohol, drug screen and hydration testing.

Do you have any illnesses that may affect you during your visit?

Are you taking any medications that may affect you during your visit?

I have read and understood the above rules and agree to comply with these conditions.

Name: _____ **Signature:** _____ **Date:** / /

Visitors Sign in Register Template

Date	Name	Company	Person visiting and/or task to perform	No. hours worked prior	Time in (arrive)	Time out (depart)	Signature on departure

Contractor and Visitor Induction Checklist

This induction is to be completed by any contractor or visitor that is considered a medium or high risk. This form is to be completed by an authorised company representative.

SECTION 1

To be completed by **medium risk** **high risk** (circle risk category)

Contractor / visitor name	
Name of company or trade name	
Contact details	
Date of induction	
Person completing induction	
Type of work being carried out	

The following items will be discussed with the new contractor / visitor:

You need to check: (✓ or x)

- The contractor / visitor will receive a copy of the site rules ☐
- Isolation procedure ☐
- Drug and alcohol policy ☐
- Traffic controls and restrictions ☐
- Reporting of accidents and incidents ☐
- Reporting of hazards ☐
- Relevant Safe Work Method Statements (SWMS) ☐
- Relevant Safety Data Sheets(SDS) ☐
- Other issues _____ ☐

Operating equipment

Where a contractor is bringing equipment on to site, a competent authorised company representative will inspect the equipment the first time it arrives to ensure that it meets the

company's equipment standards. The competent authorised company representative will conduct regular inspections to confirm that the equipment is maintained to this standard.

You need to check: (✓ or x)

Necessary licences / permits are held
(record details)

☐

Have power tools been checked
recently (tagged by electrician)?

☐

_____ has assessed
operator to be competent

☐

Are flashback arrestors fitted to oxy-
acetylene equipment?

☐

Does mobile plant conform to site
Standards?

☐

Are first aid facilities available for the
full duration of the job?

☐

- Roll over protection system (ROPs) Canopy (except for road trucks, drills, and excavator)?
- All safety guards fitted?
- Seatbelt fitted and in good condition?
- Fire extinguisher fitted and charged?
- Reverse alarm operational?
- All vehicle systems operational?

Are compliant fire-fighting facilities
available?

☐

Has entry / exit to the site been agreed
(after hours work)?

☐

Has an assessment of the hazards
associated with the work been carried
out?

☐

Other issues _____

☐

Safe Work Method Statements
provided?

☐

Safety Data Sheets provided?

☐

I have reviewed and discussed the material in section 1 of this *Contractor and Visitor Induction* with the company representative.

Signed: Contractor / visitor _____ **Date** _____

Signed: Authorised company representative _____ **Date** _____

SECTION 2

To be completed by **medium and high risk only**

Where a contractor is conducting work that is classified as a medium or high risk due to:

- The complexity and size of the project;
- The requirement for increased supervision; and
- The fact that the work requires greater technical knowledge.

Senior management will require the contractor to prepare and provide a Contractor Safety Management Plan of their own, including an assessment of risks associated with the work to be carried out by the contractor at the site.

I have supplied to _____ a copy of our Contractor Safety Management Plan and Safe Work Method Statements. These documents include an assessment of the risks associated with the work to be carried out.

Signed Contractor: _____ **Date** _____

I have reviewed the Contractor Safety Management Plan using the Contractor Safety Management Assessment Form and Safe Work Method Statements and found them to be acceptable.

Signed Senior Manager on site: _____ **Date** _____

Insert Company Logo
Here

Contractor Pre-Work Checklist

This form must be completed and documented evidence must be provided for all fields marked * prior to the commencement of work.

Business Name		Address		ABN	
Workplace / Site		Contact		Phone Number	
Length of time expected to be on-site (circle)		< 1week	< 1month	> 1 month	If greater than 1 month a Contractor Audit will be conducted.
Plant	Yes	No	Comments	Insurance	Do Not Hold
Service and Maintenance History				Workers Compensation Registration or Self Insured Details	
				Certificate of Currency (General Business)	
				Professional Indemnity	
				Public Liability	
				Other	
Cranage Work • Lifting register • Annual Inspection • 10 Year Inspection • Safe Work Registration				Hazard Identification	Yes
				No	Comments (if performing the following tasks)
				Pre-task	
				Restricted Access / Egress	
Plant Risk Assessment				Mobile Plant	
				Working at Heights	
Vehicle Inspection Checklist carried out				Falling Objects	
				Hot Work	
WHS Requirements	Yes	No	Comments	Overhead Hazards	
Work Health and Safety Policy*				Excavation	
Safety Management Plan*				Working Over a Pit	
Training / Competency	Yes	No	Comments	Confined Spaces	
Training Matrix				Inclement Weather	
Trade Certificates*				Chemical Exposure	
Tickets / Licensing*				Isolated Work	

Prior to engaging a contractor, the work must have the hazards identified. Where there are hazardous components relating to the work, the relevant controls should also be identified as well as any Licence / Permit details recorded. The identification table above is not all encompassing and any additional hazards must be identified, recorded and attached to this document.

Contractors must complete a Job Safety Analysis prior to commencing the contract work when the work involves (but not limited to):				
Working adjacent to moving traffic	Working at Height	Working with plant	Excavation	Manual Handling
Working with hazardous substances	Working on or near live electricity	Demolition	Cranage work	Confined Space

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Manager Name		Manager Signature	

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Website: www.maqohsc.sa.gov.au

February 2020

Insert Company Logo Here

Contractor Safety Management System Audit Tool

Company Name		Date	
Address		ABN	
Contact and Email		Site	
Audit Conducted by		Phone No	
Participants			

1. Company Information				
Item	Target	Target Achieved	Comments	Observations / Findings
1:1 Organisation Chart	An organisation chart that sets out the contractor's management structure is in place.			
1:2 Workers Compensation Registration or Self Insured Details	Workers Compensation Registration or Self Insurance is in place.			
1:3 General Business Insurance - Certificate of Currency	General Business Insurance is in place.			
1:4 Professional Indemnity Insurance	Professional Indemnity is in place.			
1:5 Public Liability Insurance	Public Liability Insurance is in place.			
1:6 Other relevant Insurance Certificates	As applicable.			
1:7 Current Scope of Work	Current scope of works is identified.			

2. Employee and Industrial Relations				
Item	Target	Target Achieved	Comments	Observations / Findings
2:1 Industrial Compliance - including current approved enterprise agreement, modern award application, compliant staff contracts etc.	Enterprise agreement is in place (date of expiry) or modern award applied (details of award).			
2:2 Code of Conduct	A Code of Conduct is established within the contractor organisation and has been communicated to employees.			
2:3 Equal Opportunity Policy	A Equal Oportunity Policy is established within the contractor organisation and has been communicated to employees.			
2:4 Bullying and Harassment Policy	A Bullying and Harassment Policy is established within the contractor organisation and has been communicated to employees.			
2:5 Smoking Policy	A Smoking Policy is established within the contractor organisation and has been communicated to employees.			
2:6 Grievance Resolution Policy	A Grievance Resolution Policy is established within the contractor organisation and has been communicated to employees.			

2:7 Discipline and Inappropriate Behaviour Policy	A Discipline and Inappropriate Behaviour Policy is established within the contractor organisation and has been communicated to employees.			
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3. Safety Management System / Plans / Hazards / Policies

Item	Target	Target Achieved	Comments	Observations / Findings
3:1 Work Health and Safety Policy	A Health, Safety, Environment and Community (HSEC) Policy is established within the contractor organisation and has been communicated to employees.			
3:2 Work Health and Safety Manual	A suitable Health, Safety, Environment and Community (HSEC) Procedures manual (or equivalent) has been developed and ensure is communicated to employees.			
3:3 Safety Management System	A suitable Safety Management System is in place (preferably in line with AS 4801).			
3:4 Access to the Safety Management System	Contractor Manager to ensure all relevant personnel have access to the Safety Management System.			
3:5 Incident Reports	Contractor Manager to ensure all events are reported within their respective departments using either electronic or Event Notification forms which must be available for use by all employees.			
3:6 Pre-shift Meetings	Contractor Manager to ensure a system is in place that allows all personnel under their control to attend all relevant pre-shift and operational meetings.			
3:7 Tool Boxes	Contract Managers to ensure all personnel under their control attend 1 formal safety meeting each month as a minimum and records are maintained.			
3:9 Records of Communication and Information Notices	Contractor Manager to ensure communications and information notice are displayed and retained.			
3:10 Safety Committee Records - Agenda and Minutes	Contractor Manager to ensure meeting minutes are displayed and retained in accordance with the site document retention system			
3:11 Safety Committee Action Items - Follow Up/Close Out	Contractor Manager to ensure a suitable system is in place that ensures all Health, Safety, Environment and Community (HSEC) related actions that arise from meetings are recorded for tracking purposes			
3:12 Safety Management Plan	The Contractor will prepare a Health, Safety, Environment and Community (HSEC) Management Plan prior to commencement on site and ensure it is reviewed by site Management			
3:13 Previous 3 and 12 Months Safety Performance (Reported, MTI's, LTI's, TRIFR - Total Recordable Injury Frequency Rate)	Contractor Manager to ensure safety performance is recorded and reported to site management			
3:14 Inspection / Audit Programs - Behaviour Obs and HAZOB's etc.	Contractor organisation has a formal system in place for conducting audits.			
3:15 Risk Assessment Process	Contractor organisation has completed a formal and documented hazard identification and risk assessment process for all activities completed.			
3:16 Risk Register	Contractor organisation has a formal risk register in place.			
3:17 Safety Data Sheets (SDS) Location and Sample	The contractor shall ensure that Safety Data Sheets are available for all Hazardous Substances in use.			
3:18 Drug and Alcohol Policy	A Drug and Alcohol Policy is established within the contractor organisation and has been communicated to employees.			
3:19 Fatigue Management Policy	A Fatigue Management Policy is established within the contractor organisation and has been communicated to employees.			

3:20 Fitness for Work Policy	A Fitness For Work Policy is established within the contractor organisation and has been communicated to employees.			
3:21 Environmental Policy	An Environmental Policy is established within the contractor organisation and has been communicated to employees.			

4. Competencies/Capabilities

Item	Target	Target Achieved	Comments	Observations / Findings
4:1 Position Descriptions and summarised Health, Safety, Environment and Community (HSEC) responsibilities	Contractor Managers ensure all personnel working under their direct control have been issued with and signed off against their position descriptions that clearly outline their responsibilities in regard to Work Health and Safety compliance.			
4:2 Employee Records	Contractor Manager to maintain employee records.			
4:3 Employee Induction Records	Contractor organisation to ensure their site specific Induction Program is reviewed on an annual basis and records are maintained.			
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5. Plant and Equipment (where applicable)

Item	Target	Target Achieved	Comments	Observations / Findings
5:1 State / Federal Compliance Certificates / Register	Compliance certificates and registrations are current and available.			
5:2 Risk Assessment (sample)	Contractor Manager to ensure formal plant risk assessments have been completed on all plant and equipment in use in their respective work areas.			
5:3 Pre-Start Checklists	Contractor Manager to ensure Pre-start checks are completed on all equipment prior to operation.			
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5:5 Plant / Equipment fault registers	A plant / equipment fault register is in place and maintained.			
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Summary of Findings, Observations and Recommendations (if applicable)

Findings are colour graded according to associated risk as per the following table:

Findings / Non-compliance	High Priority – requiring immediate attention	High Risk
Findings / Non-compliance	Medium Priority – timed response	Medium Risk
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6. Findings

Reference Number and Item	Details	Recommendations	Responsible Person	Timeframe	Priority

7. Observations

Reference Number and Item	Details	Recommendations	Responsible Person	Timeframe	Priority

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Workplace Emergency Plans Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

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Emergency Plans

AIM

The aim of this guidance material is to provide mine/quarry operators with practical guidance on how to develop and maintain an effective emergency plan to meet the requirements under the South Australian WHS Regulations 2012.

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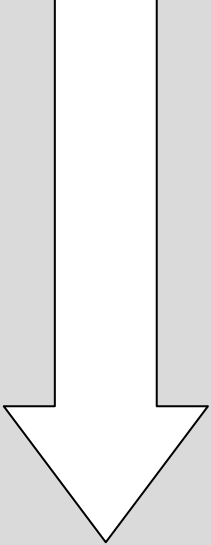
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Introduction

An emergency plan enables a mine/quarry operator to respond effectively and re-establish control of hazards in an emergency. The same principles could be used to manage other events, such as damage to property or the environment.

The emergency planning process may be described as a series of considerations the mine/quarry operator asks in order to develop an emergency plan that satisfies both site safety requirements and legislative obligations. This may include:

Emergency planning process considerations	
What situations could escalate into an emergency at your site or nearby that involve risks to the health, safety or welfare of workers or other people?	
How you will respond to each of these emergencies?	
What resources will you need to respond to the identified emergencies?	
Who do you communicate/consult with internally and externally to organise the emergency response plan? How will the communication/consultation be carried out?	
What training, instruction and information must be given workers and other people?	
What is to be written in the emergency plan for the mine/quarry and other related documents?	
How is the emergency plan to be tested, audited and reviewed to maintain it and to ensure there is an appropriate response should an emergency occurs?	

More specifically, emergency planning involves identifying emergency scenarios that could occur at your site/s and then risk-assessing the potential hazards and consequences of those scenarios in order to identify effective response and controls. The purpose of emergency planning is to help prepare your workers to respond to such emergencies and to allow the mine/quarry to effectively regain control of all hazards.

1. What is an Emergency Plan?

An emergency plan details the response procedures and control measures that are essential for effective and timely management of an emergency situation at a mine/quarry that involve a serious risk of injury or illness. Prompt action and advance preparation can help save lives and protect financial investments in the event of emergencies. An emergency plan ensures that all persons are prepared physically and mentally to respond and control an emergency by helping to determine the following:

- what precautions would minimize the effects of an emergency, should one occur;
- what immediate actions personnel should take to contain an emergency;
- whether workers have the competency necessary to carry out the procedures outlined within the emergency plan;
- who will assume temporary command of the emergency effort;
- who is in charge of which parts of the emergency operation;
- what kinds of external emergency services are available to sustain rescue actions;

- how key personnel will obtain information and assess reports to make critical decisions; and
- what media relations procedures are necessary in the event of an emergency?

The emergency plan must address all aspects of emergency response including ensuring:

- the establishment of a system that enables all persons at the mine/quarry to be promptly located;
- the provision of adequate rescue equipment; and
- that an adequate number of persons trained in the use of rescue equipment are available (either on-site or on call) if a person is working at the mine/quarry.

An emergency plan can be applied to a single mine/quarry or to a group of mines/quarries, so long as it successfully addresses the unique conditions and requirements of each mine/quarry site. Emergency response procedures help to organise and prepare personnel for emergency situations by:

- assisting personnel in responding quickly and effectively to an emergency;
- providing a common set of practices that govern the activities needed for an orderly response;
- outlining strategies for early containment and control of an emergency; and
- establishing a common set of rules for training all emergency response personnel.

The emergency plan must be documented and set out and expressed in a way that is easily read and understood by all persons who use it.

2. Who has duties for an emergency plan?

All persons who conduct a business or undertaking (PCBUs) at a mine/quarry have the duty to ensure that an emergency plan is prepared, implemented and maintained for their workplace.

A mine operator has additional requirements in relation to the development of an emergency plan for the mine/quarry. These specific requirements are detailed in schedule 22 of the South Australian WHS Regulations 2012.

Note: *An extract of schedule 22 is included in Appendix A*

3. Consultation

Throughout the development and implementation of the emergency plan, the mine/quarry operator must consult with their workers (inclusive of employees, contractors, labor hire personnel, etc.) and other PCBU's (contractors) at the mine / quarry.

The South Australian WHS Regulations 2012 also require that in preparing the emergency plan, the mine/quarry operator to consult with:

- a) the primary emergency services that have responsibility for the area in which the mine/quarry is located; and
- b) any other emergency service organisation (this may include MFS, CFS, SES, SA Ambulance) including any mines rescue organisation, that may be required to participate in implementing the emergency plan; and
- c) in relation to principal mining hazards that may cause or contribute to an incident that may adversely affect the health and safety of persons in the area surrounding the mine/quarry (local community) – the local authority for the area in which the mine is located.

When consulting with the local emergency services, the following should be discussed:

- what resources the local emergency services can contribute to when responding to emergencies at the mine/quarry;
- what resources the mine/quarry might need to ensure that the equipment used by the local emergency services is able to function effectively; and
- how long it will take the emergency services to respond to any emergency at the mine/quarry.

4. Developing the Emergency Plan

In developing the emergency plan some basic factors must be considered. As stated above, an emergency plan can be applied to a single mine/quarry or to multiple mines/quarries so long as it addresses the unique conditions or requirements of those sites. This includes taking into consideration the type of operation, unique site hazards, the range and number of workers, training of workers, geography of the surrounding area, remoteness of the operation and the available equipment and services.

The emergency plan must be written in plain English with critical information well indexed and easily referenced. The emergency plan should contain relevant information relating to the site. While these elements may vary from site to site, they should cover the following generic items:

- Mine/quarry information;
- Plans and drawings;
- Risk management;
- Emergency equipment and facilities;
- How to locate all personnel;
- Emergency Assembly Points;
- First aid requirements;
- Training;
- Incident control;
- Communication;
- Contact lists;
- Securing of the site;
- Procedures for controlling specific hazards;
- Testing of the emergency plan; and
- Record keeping.

4.1. Mine Information

The following basic information should be included in the emergency plan:

- Name of the mine/quarry;
- The name of the PCBU;
- Location in relation to the nearest town;
- Location of the property (GPS Location);
- Mailing address and contact phone numbers (as well as fax and email details if applicable);
- Mining lease details;
- Name of the site senior manager;
- Type of operation (e.g. underground, surface, quarry, exploration, etc.); and

- The number of workers on site, including management, administration and contractors.

The emergency plan should provide clear written directions to the site, including maps/plans that can be used for navigation. This is particularly important in remote areas. In addition the plan should identify locations for possible transfer sites for mine/quarry emergency transport vehicles to ambulances.

4.2. Plans and Drawings

The emergency plan will need to include a documented set of site plans, which details as a minimum:

- Emergency facilities, including:
 - Emergency assembly points;
 - First aid kits and or first aid rooms;
 - Fire extinguishers and hydrants;
 - Other relevant emergency equipment.
- Site services (e.g. electrical and gas) particularly underground services and power lines;
- Location of buildings and structures (e.g. offices, workshops and fixed plant)
- Old mine/quarry workings; and
- Location of any hazardous substances stored on site.

4.3. Risk Management

The emergency plan must use a risk management process and record the risk assessments undertaken to identify the reasonably foreseeable emergencies or potential emergency scenarios. It must also record the identified and implemented controls that ensure the mine/quarry can effectively respond to the emergency.

A good starting point for identifying foreseeable and potential emergency scenarios is to look at:

- Current existing risk assessments and your risk register;
- Records of previous incidents; and
- Incident investigations.

Below is a list of potential emergency scenarios that may present at your site. Note this list is not exhaustive and is a guide only.

Natural disasters

- Major Earthquake / seismic activity
- Severe animal / insect infestation (e.g. bees, snakes, spiders, etc)
- Cyclone
- Extreme weather events (dust, electrical)
- Flood
- Bush fire

Off-site Incidents

- Light vehicle accident
- Bus accident

- Heavy vehicle accident

On-site Incidents - Surface

- Light vehicle accident
- Heavy vehicle accident
- Heavy vehicle v Light vehicle accident
- Mobile plant / equipment incident
- Hazardous chemicals release/spill
- Fixed plant incident
- Conveyor incident
- Bulk LPG leak/fire/explosion
- Bulk fuel leak/spill/fire/explosion
- Explosive magazine fire/explosion
- Fall/collapse into old workings
- Tails dam wall failure
- Building fire
- Working at heights incident
- Confined space incident
- Electrical incident (e.g. electric shock, electrical fire)
- Tyre fire/explosion
- Plant fire
- Inrush into open pit
- Pit wall/ramp failure
- Bomb or other external threat
- Others as applicable

On-site Incidents – Underground

- Rockfall/rock-burst or ground collapse
- Underground mobile equipment (UGME) accident
- Light vehicle accident
- UGME v LV accident
- Underground fire
- Underground explosion/air blast
- Sulphide dust explosions
- Trapped persons
- Trapped UGME
- Stope failure
- Flooding/inrush
- Others as applicable

When conducting risk assessments for the potential emergency scenarios, it is worth taking into account the following factors;

- Local patterns of extreme weather events;
- Your proximity to flood plains, seismic faults, dams water tables, etc;

- The condition of the roads leading to and from your site – are they ever impassable due to heavy rain?
- For isolated/remote sites – what is the availability of emergency services, fire, ambulance and rescue;
- Typical drive time for workers to travel to and from work;
- How reliable is phone coverage/service?

4.4. Emergency Equipment and Facilities

The equipment/facilities required to deal with emergencies should have been identified from the risk assessments. The location of your mine/quarry will have a great deal to do with the emergency resources available and the time required for them to respond.

A list of the actual equipment/facilities available on site must be recorded in the emergency plan. This record should also include other sources of equipment that may be needed in the event of an emergency. Examples of equipment/facilities include the following:

- First aid supplies;
- Fire extinguishers, hydrants, pumps, tanks, etc;
- Rescue equipment (if applicable);
- Equipment that can be assigned to an emergency task (e.g. a bulldozer or excavator can be used to in an emergency to dam or dyke a flood, a water cart for firefighting);
- Industrial ambulance or emergency transport vehicle;
- Emergency assembly points;
- External agencies that can source specific equipment; and
- External agencies that can provide specific services.

4.5. First Aid Supplies

Some of the most critical equipment required on site is adequate and appropriate first aid equipment and facilities. This equipment is essential for response to any illness or injury that persons may sustain. To ensure first aid equipment is adequate and appropriate for your site:

- Identify hazards which may cause an injury or illness (also consider workers' existing illnesses, e.g. diabetes, asthma, epilepsy, heart conditions, etc);
- Assess the risk based on the type and extent of injuries or illnesses that may occur;
- Decide on the appropriate first aid equipment and facilities. Standard or generic first aid kits may need to be added to or modified to ensure they meet the needs of the mine/quarry;
- Obtain the identified first aid first aid supplies and facilities; and
- Monitor and review the first aid equipment, facilities and services to ensure they continue to meet your requirements.

Note: Additional information relating to first aid equipment, facilities and first aid training requirements is available in the Code of Practice – First Aid in the Workplace, which is available from the SafeWork SA website.

4.6. Training

All persons working at the mine/quarry need to be trained in the use and location of the emergency management plan. In addition, once you have completed the risk management phase and have

identified the emergency resources/equipment and first aid requirements, you will have also identified that members of your workforce will require additional training in the use of the emergency response equipment and in first aid.

The levels of training and the number of workers that will require this training will depend on the size, nature, complexity and location of your mine/quarry.

This can vary from having a fully functioning emergency response team for a large remote mine/quarry to having workers trained in the use of fire extinguishers and provided first aid training.

When considering the training requirements, it is worth taking into account the following questions:

- Who is to be trained?
- Who will provide the training?
- What training is required for all workers?
- What specialised training is required and for whom?
- What training is required for contractors?
- What training is required for visitors and others?
- How can external emergency services be involved in the training?
- At what intervals (time frames) is training and refresher training to be provided?

4.7. Incident Control

The emergency plan must identify:

- First steps, including who to call, how to call and when to call;
- Who is responsible for implementing the emergency plan;
- Who will be in charge of controlling the emergency response;
- What communication systems are to be used during the emergency response (e.g. two-way radio, mobile phone, satellite phone, etc);
- List of tasks that need to be assigned to help manage the emergency; and
- Instructions on how to carry out those tasks.

4.8. Communication

Effective communication is often the hardest element to initiate and sustain. The emergency plan should outline the communication processes needed to ensure workers, along with external agencies, are contacted and information transferred.

The following should be considered:

- Establish a list of emergency contacts and display this list near phones and radios;
- How will workers be accounted for during an emergency and where will they assemble;
- Assign a dedicated emergency frequency for radios;
- Find best coverage on site for mobile and satellite phones;
- Always have back up communications;
- Have spare batteries and power sources;
- Have regular meetings to keep workers informed of the emergency progress;

- Always have someone on site available for contact; don't leave phones and radios unattended;
- Identify how to control communications leaving site and persons seeking information from the site: And
- How to communicate the "all clear" when it is safe to return to normal operations.

4.9. Contact Lists

Smaller mines/quarries usually have limited emergency response resources. As a result, on becoming aware of an emergency, they should contact external help as soon as possible. The persons or agencies required to be contacted should be determined through the risk assessment.

An emergency plan should include a stand-alone page or pages with all contact information for persons or agencies that may need to be contacted during an emergency.

The following are some examples of contacts that should be included, but this is by no means an exhaustive list:

External resources and contacts	Assistance on offer
Company management	Advise and approvals for resources
Emergency services <ul style="list-style-type: none"> • Police • Ambulance • MFS • CFS • SES • Royal Flying Doctor 	Emergency response a core function and well resourced.
Company doctor	Medical advice
Neighbouring mines/quarries and other businesses	General assistance, enact any MOU's for mutual assistance
Government bodies	Legal advice/obligations and assistance
Local Councils	Legal advice/obligations and assistance
Equipment suppliers	Specialised rescue equipment
Site contractors management	Advice and assistance
Consultants and equipment specialist	Specific technical advice

Larger sites might need to include contact details of onsite workers or key locations. As noted above, contact details should be documented, kept as part of the emergency plan and displayed near phones and radios.

4.10. Securing the Site

In the event of an emergency, external personnel may try to gain access to the site. These persons can obstruct the progress of the emergency response, and may even make the situation worse or put themselves in danger. Their effect on the situation needs to be minimised. The emergency plan should

identify how the site is to be secured and how the movement of persons and equipment on and off site will be controlled.

Unauthorised communications leaving the site or external inquiries coming in, should be controlled and kept secure.

4.11. Additional Procedures

Your site may need to have specific procedures for controlling site specific hazards (such as cyanide and sulphuric acid), those documents will need to be included or referenced by the emergency plan.

4.12. Testing of the Emergency Plan

The emergency plan must be regularly tested to ensure its effectiveness. Tests should include desk top as well as drills with all affected persons. In some cases, evacuation drills will be required to examine persons' movements, actions and response times.

Exercise debriefing should take place to analyse the effectiveness of the ERP. Any identified additional controls or changes to controls should be undertaken as soon as practicable after the exercise.

At a minimum testing of the emergency plan must occur at least once per year.

Note: *Evacuating persons from the site for blasting purposes does not equate to a drill.*

4.13. Record Keeping

Documentation that either supports the emergency response plan or is required by the plan must be retained on file. These records allow an organisation to show:

- how the emergency response plan has been developed,
- evidence of testing and verifying the effectiveness of plans, and
- the emergency response plans resources are being maintained.

Therefore, the following records should be kept on site:

- All risk assessments,
- Training (first aid, operational tasks and emergency response),
- Emergency response and first aid equipment checks,
- Implementation of emergency procedures (if applicable),
- Incident debriefing (if applicable), and
- Operational plans and drawings.

Appendix A

Schedule 22—Matters to be included in emergency plan for a mine

Regulation 664

1—Site and hazard detail

- 1.1 The location of the mine, including its street address and the nearest intersection (if any). Note—sufficient detail must be provided to enable a person not familiar with the site to find it.
- 1.2 The current mine survey plan required under Chapter 10 Part 5.
- 1.3 A brief description of the nature of the mine and mining operations.
- 1.4 The maximum number of persons, including workers, likely to be present at the mine on a normal working day.
- 1.5 The emergency planning assumptions for different emergencies, and likely areas affected.
- 1.6 The protective resources available to control an incident that could result in an emergency.
- 1.7 The emergency response procedures, including procedures for isolating areas of the mine in an emergency.
- 1.8 The infrastructure likely to be affected by an emergency.

2—Command structure and site personnel

- 2.1 The command philosophy and structure to be activated in an emergency, so that it is clear what actions will be taken, who will take these actions and how, when and where they will be taken.
- 2.2 Details of the person who can clarify the content of the emergency plan if necessary.
- 2.3 The contact details of, and the way to contact, the persons at the mine responsible for liaising with emergency services.
- 2.4 A list of 24 hour emergency contacts.
- 2.5 Arrangements for assisting emergency services.

3—Notifications

- 3.1 In the event of the occurrence of a notifiable incident or an event that could reasonably be expected to lead to a notifiable incident, procedures for notifying—
 - (a) any person whose health or safety may be affected, even if—
 - (i) the person is located underground; or
 - (ii) there is no electrical power that can be used for the notification; and
 - (b) the emergency services in circumstances where emergency services are required.
- 3.2 On-site and off-site warning systems.
- 3.3 Contact details for emergency services and other support services that can assist in providing resources and implementing evacuation plans in an emergency.
- 3.4 On-site communication systems.

4—Resources and equipment

- 4.1 On-site emergency resources, including—
 - (a) first aid equipment, facilities, services and personnel; and
 - (b) emergency equipment and personnel; and
 - (c) gas detectors, wind velocity detectors, sand, lime, neutralising agents, absorbents, spill bins and decontamination equipment.

- 4.2 Off-site emergency resources, including arrangements for obtaining additional external resources (specific to the likely incidents), including mines rescue services, as necessary.
- 4.3 Arrangements for mines rescue that state the following:
 - (a) the minimum mines rescue training to be provided;
 - (b) any arrangements for the mine operator and mine operators of mines in the vicinity to assist each other in an emergency;
 - (c) how inertisation equipment is to be used;
 - (d) the procedures to be followed in carrying out mines rescue.
- 4.4 For an underground mine, a means of communication between the surface of the mine and any underground area of the mine where persons are located, that is effective even if there is no electrical connection between the surface and the relevant underground area.

5—Procedures

- 5.1 Procedures for the safe evacuation of, and accounting for, all persons at the mine.
- 5.2 Procedures and control points for utilities, including gas, water and electricity.
- 5.3 Procedures in the event of the ventilation system at the mine failing totally or for more than 30 minutes.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

(SA) Work Health & Safety Act 2012,

(SA) Work Health & Safety Regulations 2012,

Code of Practice – First Aid in the Workplace

Safe Work Australia – Draft Code of Practice, Emergency Response at Australian Mines,

QLD Guidance Note QGN 15 – Emergency preparedness for small mines and quarries

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The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Forward

On the 1st January 2014 there were changes to the South Australian WHS Regulations 2012 and Chapter 10 (Mines) was enacted. A major component of the requirements of Chapter 10 is Part 2, Division 5 — Emergency Management.

Regulation 664 states that a mine operator must prepare an emergency plan for the mine.

This MAQOHSC Workplace Emergency Plan Template, in conjunction with the MAQOHSC Workplace Emergency Plan Guide, will assist and guide you through developing your site specific Emergency Plan.

Instructions – always use

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation's structure.

1. Remove all **“(insert company name)”** sections and replace with registered business name
2. Remove all **“(insert name of quarry/mine)”** sections and replace with quarry/mine pit name.
3. Remove all **“(insert senior management position e.g. site manager)”** and replace with relevant position
4. Remove all **“(insert location)”** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all **“Note”** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Emergency Plan

(Insert Company Name and Company Logo or Site Photo)



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

(Replace with company logo or site photo)

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1. Introduction

***Note:** The information below has been provided as an example only and will need to be modified to provide an adequate level of detail for your specific operation.*

***(insert company name)** operates the **(insert name of quarry/mine)** on an Extractive Mineral Lease EML 1234, the **(insert name of quarry/mine)** is located at **(insert address of quarry/mine)**.*

***Note:** Sufficient detail must be provide to ensure that a person not familiar with your site can easily find it. For example: Approximately 15 km south of Dirt Town at 145 Main Rd, 200 metres South of intersection with Rocks rd.*

The ***(insert name of quarry/mine)*** is an open cut, hard rock quarry producing construction and road base materials on an approximately 16.6 Ha tenement, employing 10 persons.

The operating hours of the ***(insert name of quarry/mine)*** are:

Monday – Friday: 6.30am – 5.00pm

Saturday: 6.30am – 12.00pm

2. Purpose

The purpose of this Emergency Plan is to provide detailed guidance on how to respond to identified emergency situations that could occur at the ***(insert name of quarry/mine)***.

The ***(insert name of quarry/mine)*** Emergency Plan has been developed in accordance with the requirements of the South Australian Work Health and Safety Regulations 2012, Chapter 10 Mines, Part 2, Division 5 Emergency Management.

3. Scope

The ***(insert name of quarry/mine)*** Emergency Plan applies to all aspects of our operations including Exploration, Mining, Processing and Administration.

All ***(insert company name) (insert name of quarry/mine)*** employees, contractors and visitors are required to comply with the requirements of the ***(insert name of quarry/mine)*** Emergency Plan.

4. Emergency Response Strategy

(insert company name) shall provide and maintain resources, procedures and trained personnel to ensure that adequate emergency response capabilities are available at all times during operations at the ***(insert name of quarry/mine)***.

4.1 Emergency Event Classification

Emergencies will be classified into three levels depending on the severity of the actual and potential impacts and the extent of the response required to manage the event

Note: The below is an example only and may need to be modified to suit your operation.

Emergency – Incident Classification

Level 1 – Site Contained

Emergency is of minor consequence and is;

- Contained on-site,
- Controlled immediately via on-site resources and personnel,
- Not expected to escalate.

Level 2 – Time and Response Critical

Events that pose a significant risk to health and safety, property, the environment, and;

- Depend on rapid response to control or prevent escalation,
- May be unable to control immediately using on-site resources or personnel,
- Require external emergency services (fire, ambulance, etc.),
- Have the potential to escalate,
- Have the potential to extend beyond the site boundaries.

Level 3 - Major Incident or Crisis

Events similar to Level 2 that pose a major threat to health and safety, property, the environment and;

- Has or is likely to cause major disruption,
- Has or is likely to impact on the community,

4.2 Declaring an Emergency

Note: The below is an example only and will need to be modified to suit your operation. This will include the type of radio frequency used in your operation, e.g. UHF, VHF, private frequency, etc.

In the event of an emergency, the following radio communication shall be applied.

Radio Channel – XX

Call “**EMERGENCY – EMERGENCY – EMERGENCY**” ensure to use clear & slow language,

Repeat until answered,

When answered, give:

- Your name,
- Location of the emergency,
- Nature of the emergency (fire, first aid, rescue, etc.), and
- Assistance required.

Ensure message is repeated to confirm it is understood,

When an emergency call is initiated all other personnel are to cease operations, stay on the appropriate radio channel and maintain radio silence until notified by their Supervisor.

Should external emergency response be required the *(insert position e.g. Area Supervisor or Emergency Coordinator)* (On-Scene Controller) shall contact the relevant emergency services via landline, dial 000 or via mobile phone, dial 112.

Dial 000 (may need to dial 0 first for an outside line), Mobile dial 112,

You will be asked for the emergency service required? (police, fire, ambulance),

Answer any questions about location – *(insert a detailed description, nearest town, distance out of town, what direction, any distinguishing landmarks and it can be useful to include GPS coordinates)*.

Note: Ensure to confirm the relevant emergency contact numbers for you area.

4.3 Emergency Contacts

Note: The below is an example only and will need to be modified to suit your operation

Service	Telephone No
CFS / MFS	000
SA Ambulance	000
SA Police	000
SES	132 500 - 000
Local Hospital	08 XXXX XXXX
Local Doctor	08 XXXX XXXX
Poisons Information Centre	13 11 26
SafeWork SA	1800 777 209
EPA	1800 623 445

Contact Name	Telephone No
Jo Bloggs (CEO)	04XX XXX XXX
Jim Smith (Quarry Manager)	04XX XXX XXX
Bob Down (WHS Coordinator)	04XX XXX XXX
Ron Fast (ERT Captain)	04XX XXX XXX
Bill Citizen (Quarry Supervisor)	04XX XXX XXX
John Fixit (Workshop Supervisor)	04XX XXX XXX
Weighbridge	08 XXXX XXXX
Site Admin	08 XXXX XXXX
First Aid Room	08 XXXX XXXX
Bill Citizen (Quarry Supervisor)	04XX XXX XXX

4.3.1 Communication System

Two Way Radio – eg: UHF channel XX, Mine Radio channel XX

Wherever possible, emergencies should be initiated through the two way radio system – this will ensure that all possible resources will respond to the emergency in the shortest possible time.

Power Failure

If power is lost to the telephone system, use any of the company provided mobile phones – these are available with the Quarry Manager, WHS Coordinator or Supervisors.

Note: For underground operations details will need to be provided on how communications shall be provided in the event of power failures, e.g.: site generators, battery backups in refuge chambers, etc.

4.4 Emergency Assembly and Evacuation

Note: The below is an example only and will need to be modified to suit your operation.

In the event of an emergency and a decision to evacuate, all instructions relating to the evacuation will come from the Quarry Manager or Supervisor at the scene of the emergency.

It is the responsibility of the Supervisor to ensure all persons, inclusive of contractors, in their workgroup are informed of the evacuation and Emergency Wardens to ensure all persons evacuate to the appropriate emergency assembly point (EAP).

To ensure that all those present on the site are accounted for (including contractors and visitors) a head count is performed by emergency wardens. This will include the use of the employee and visitor register taken from the site's computer system, and the sign in register. Emergency Wardens perform the necessary head counts at each emergency assembly point (EAP) and communicate to the Emergency Coordinator via radio or telephone.

If someone on the site cannot be accounted for, then a search will be initiated by the Emergency Coordinator, if safe to do so.

NO persons are to leave the emergency assembly point (EAP) until they have been directed to do so by the emergency wardens or Supervisor in charge (On Scene Controller). This clearance will come from the Quarry Manager or Emergency Coordinator.

4.4.1 Emergency Assembly Points (EAP's)

Note: The below is an example only and will need to be modified to suit your operation.

EAP's at the *(insert name of quarry/mine)* are located at:

1. Visitor / Staff Car Park – *insert photo of the location with the EAP sign visible.*



2. Wash down bay, Southern end of Workshop - *insert photo of the location with the EAP sign visible.*



4.4.2 Evacuation from Site

Note: The below is an example only and will need to be modified to suit your operation.

Depending on the type of emergency, a site evacuation may be initiated.

Based on the initial assessment of the emergency (i.e. a Level 1, 2 or 3 emergency), the Emergency Coordinator may take the following steps:

- Initiation of an area or site evacuation;
- Announce over the radio the type and location of emergency;
- Contact the Weighbridge via radio or telephone detailing the nature of the incident and request to contact the relevant emergency services; and
- Account for personnel.

In the event of the release of hazardous materials, persons are to proceed up wind of the release. If an EAP is downwind of the release the warden is to relocate all persons to a safer location.

Wind direction is indicated by a wind sock located *(insert location, e.g. on top of the primary crusher)*.

It may be decided by the Emergency Controller that all persons should be evacuated to a location off site. In such an event all persons shall remain in the control of the Emergency Coordinator. No person is to leave without the authorisation of the Emergency Coordinator.

4.5 Emergency Exercises

Note: The below is an example only and will need to be modified to suit your operation upon consultation with relevant emergency services.

Emergency Preparedness and Response shall be tested via emergency exercises, audits and reviews to verify adequacy and effectiveness.

4.5.1 Objectives of Emergency Exercises

- Safely test the facilities and strategies in place to manage emergency events in realistic circumstances;
- Test the competency of workers in using the facilities and procedures;
- Enhance the confidence and ability of workers to respond in an emergency;
- Identify opportunities for improvement; and

- Share the learning outcomes with others.

4.5.2 Scheduling of Emergency Exercises

Scheduling of emergency exercises will be developed by the site *(insert position e.g. WHS Coordinator)* in consultation with the relevant emergency services.

As a guideline, site emergency exercises will be conducted in accordance with the following;

- **Major Site Exercise** - 1 major practical exercise for the mine/quarry will be conducted annually. This exercise is designed and organised by a committee and overseen by the Quarry/Mine Manager.
- **Minor Mine Site Exercise** – 1 minor practical exercise per annum for each shift – scheduled quarterly. These exercises are designed and organised by a committee overseen by the Quarry/Mine Manager.
- **Supporting Exercise** – Supporting exercises will be scheduled as part of the annual Emergency Plan Review. These desktop / semi-practical exercises are to be designed and organised by *(insert position e.g. WHS Coordinator)*.

Reporting of Emergency Exercises.

Reports and outcomes of emergency exercises will be recorded in the safety management system with identified improvement opportunities included in the corrective and preventative actions report for treatment.

4.6 Responsibilities

***Note:** The below list of responsibilities is an example only and will need to be modified to suit your operation. Due to the size and nature of your operation the list of responsibilities detailed below may need to be incorporated into fewer roles.*

For example, in a smaller quarry the Quarry Manager may well incorporate the roles of Emergency Coordinator, First Aider and CEO. The Supervisor may incorporate the responsibilities of On-Scene Controller, Emergency Warden and First Aider. In addition some roles listed below may not be relevant to your operation and as such will not be required.

4.6.1 On-Scene Controller

The Supervisor who first arrives on the scene will assume the position of On-Scene Controller from the emergency wardens and will manage first response and remain in control until relieved by another competent person, or a person of higher skill or knowledge. The On-Scene Controller will assume the role of Emergency Coordinator until a nominated person establishes the role.

Responsibilities:

Upon hearing an emergency call, or being notified, the Supervisor shall:

- Apply Duty Card 2;
- Answer emergency calls and prompt the caller for details;
- Request an Emergency Coordinator to be appointed;
- Assume the role of Emergency Coordinator until a nominated person is established;
- Manage First Response - mobilise emergency response people/services and remain in control until relieved by another competent person, or a person of higher skill or knowledge;
- Evacuate or withdraw personnel from danger, as necessary;
- Manage and co-ordinate the emergency response;

- Call Emergency Coordinator with request for additional resources, as required
- Hand over to relief On-Scene Controller if prolonged response is required; or more senior controller arrives at scene;
- Inform Emergency Coordinator when the on-scene response is completed and/or current status;
- Monitor and oversee the overall safety of the emergency response activity;
- Supervisor is responsible for initiating Incident Investigations; and
- Attend de-briefing after the event, as necessary.

4.6.2 Emergency Controller

The primary role of the Emergency Coordinator is to provide communications and support to the On-Scene Controller and arrange internal and external resources and communications necessary to support the emergency response effort.

Responsibilities:

Upon being notified, the Emergency Coordinator will go in the first instance to the relevant Emergency Control Centre (e.g. Supervisor's Office, Weighbridge Office or Admin Office, depending on location of the emergency), and remain in contact; and

- Apply Duty Card 3;
- Establish an Emergency Control Centre, check that relevant resources are at hand, and notify On-Scene Controller when ready;
- Call and mobilise external back-up by calling relevant emergency services;
- Establish the emergency classification, i.e.: Level 1, Level 2 or Level 3;
- Call and/or verify status of additional internal or external resources required;
- Notify relevant persons and authorities as specified on Duty Cards and Emergency Procedures.
- Seek assistance, e.g. assign someone to document events, maintain logs, etc. if required;
- Maintain communications and record events and dispatching of resources in the Emergency Log;
- Anticipate what resources may be required and confirm this with the On-Scene Controller, as required;
- Hand-over to relief Emergency Coordinator if continuation or prolonged response is required; and

Communicate all-clear at completion of emergency response; or advise personnel when specific operations may resume.

4.6.3 Emergency Wardens

The primary role of the Wardens is to assist with evacuation of personnel and accounting for people in the event of a fire or other emergency.

Responsibilities:

In the event of a fire or other emergency event in their area, e.g. emergency call or fire alarm activated – appointed Wardens will:

- Apply Duty Card 4;

- As far as is practical, establish the location and severity of the emergency event;
- Where relevant, collect visitor's book and/or obtain printout will be obtained from the site database, i.e. Scenario Emergency List;
- Fit a Warden's Hard Hat (red) so that you are readily identified;
- Ensure alarms are activated;
- Conduct a 'sweep' of your area and assist with orderly evacuation/withdraw personnel from danger;
- Move to the relevant EMERGENCY ASSEMBLY AREA (either A or B) while remaining upwind of smoke;
- Account for personnel, including visitors in the area. If personnel are missing, attempt to contact them;
- Report any missing persons to Emergency Coordinator;
- Remain at the EMERGENCY ASSEMBLY AREA (either A or B) until the emergency has passed and the 'all-clear' is given; and

Attend the de-briefing session after the emergency is terminated.

4.6.4 Emergency Response Team *(if in place)*

The role of the Emergency Response Team is to respond to emergencies, to provide emergency response support to site personnel and be proactive in providing emergency response plans for people, property and the environment in accordance with the Emergency Response Team Charter.

Responsibilities:

Upon hearing an emergency call or being notified, appointed Emergency Response Team Members will:

- Apply Duty Card 5;
- As far as is practical, establish the location and severity of the emergency event;
- Check communication equipment and remain in contact;
- Mobilise equipment to the emergency scene;
- Assemble as a team and report to the On-Scene Controller upon arrival;
- Check for DANGER to self and others before responding at scene;
- Respond as requested by the On-Scene Controller and/or the Emergency Coordinator;
- Assist with injured persons and First Aid as necessary; and
- Avoid excessive fatigue or stress during response by rotating strenuous tasks.

The emergency response team is coordinated by the Safety Training Coordinator with representation from across the site. The objective is to have approximately 5 members on each shift.

The Emergency Response Team Training Scheme is updated annually against the training needs analysis for the team. Members are required to attend scheduled training.

4.6.5 First Aiders

Responsibilities:

Upon hearing an emergency call, or being notified, competent First Aiders will:

- Apply Duty Card 6;
- As far as is practical, establish the location and severity of the emergency event;
- Check first aid supplies at hand and remain in contact;
- Prepare to mobilise;
- If required, travel to emergency scene to assist and report to the On-Scene Controller upon arrival;
- Check for DANGER to self and others before responding at the scene;
- Respond as requested by the On-Scene Controller and/or the Emergency Coordinator; and

Assist with injured persons and First Aid as necessary.

4.6.6 Water Truck Operator

The role of authorised Water Truck Operator in an emergency is to attend incidents where bulk water may be required for: firefighting/control, dust suppression or clean-up activities.

Responsibilities:

Upon hearing an emergency call, or being notified, Water Truck Operators will:

- Apply Duty Card 7.
- As far as is practical, establish the location and severity of the emergency event.
- Check water level and advise On-Scene Controller when ready.
- Prepare to mobilise.
- If required, travel to emergency scene to assist and report to the On-Scene Controller or Emergency Coordinator upon arrival.
- Check for DANGER to self and others before responding at the scene.
- Respond as requested by the On-Scene Controller and/or the Emergency Coordinator.
- Provide assistance in Fire Fighting, dust suppression or clean-up activities.
- If **ELECTRICAL FIRE – DO NOT** attempt to apply water to fire unless Electrician has verified power disconnected.
- If **HEAVY EQUIPMENT FIRE – DO NOT** attempt to approach fire unless the On-Scene Controller has verified tyres are not heated or on fire.

4.6.7 Workers

The role of Workers in an emergency is to adhere to emergency procedures, maintain radio silence, and evacuate as necessary to nearest Emergency Assembly Area.

Responsibilities:

Upon hearing an emergency call, or being notified of an emergency event on site, all Workers will:

- Apply Duty Card 8;
- Cease operations and adhere to radio silence;
- If evacuation is required:
 - Follow instructions of the Warden or Supervisor;
 - Evacuate to nearest Emergency Assembly Point; and
 - Remain there until the 'all clear' is given.
 - Assist with the emergency response, but only if requested.

- Plant Operators – take feed off plant and prepare to shut down if so requested; and Stand-by and await instructions from the Emergency Coordinator before resuming operations.

4.6.8 WHS Coordinator *(if in place)*

The role of WHS Coordinator in an emergency is to provide support to Emergency Response personnel during an emergency; and to assist with the Incident Investigation and Reporting functions.

Responsibilities:

Upon being notified of emergency the WHS Coordinator will:

- Apply Duty Card 9;
- Liaise with the On-Scene Controller and Emergency Coordinator and provide assistance as required;
- Check the correct Emergency Classification has been identified (L1 – L2 – L3) and appropriate response has been activated;
- Check on site security arrangements;
- If an established means of blocking site access roads does not exist at the designated location, arrange for barricades to be established;
- Act as liaison officer with the police officer in charge if police support has been obtained to assist in security of the site;
- Remove any barricades and return site access to normal conditions when notified of the termination of the emergency;
- Attend the de-briefing session after the emergency is terminated;
- Assist with incident investigation and reporting; and

Ensure all equipment used during an emergency or emergency exercise is returned to 'ready' state.

4.6.9 Quarry Manager

The role of the Quarry/Mine Manager in an emergency is to provide resources to support Emergency Response personnel during an emergency; and to ensure Incident Investigation, Reporting and Notification requirements are met.

Responsibilities:

Upon being notified of emergency the Quarry/Mine Manager will:

- Apply Duty Card 10;
- Receive notification and travel to site as required;
- Determine the following information:
 - What is the emergency?
 - Where is the emergency?
 - When did it start and what is the status?
 - Any known deaths or major injuries?
 - Have any external authorities been called?
- Notify relevant statutory body if required;

- Where a crisis situation has been declared, ensure adequate response by contacting the CEO;
- Assume charge of the situation i.e. liaise with Emergency Coordinator/Communications Person and monitor the progress of the response activities and provide updates to the Crisis Management Team and appropriate personnel);
- Attend the de-briefing session after the emergency is terminated.

Ensure that Incident Investigation, Reporting and Notifications are initiated and are carried through.

4.6.10 Chief Executive Officer

The Chief Executive Officer's (CEO) Role is to oversee Crisis Management and provide resources and support to the Crisis Management Team.

Responsibilities:

Upon being notified of a Level 3 Emergency (Crisis), the CEO will:

- Apply Duty Card 11;
- Provide support to the Quarry/Mine Manager;
- Provide resources and support to the Crisis Management Team;
- Verify that corporate and statutory notifications and reporting requirements are met;
- Verify that adequate risk management processes are established to reduce and mitigate adverse impacts;
- Verify that appropriate support is provided to injured persons and/or next of kin;
- Liaise with Insurance Company(ies)/Underwriters;
- Convene and/or attend Crisis Management Team Meetings, as necessary;
- Seek legal advice, as required; and

Attend the de-briefing session after the crisis is terminated.

5. Potential Incidents

Note: The below is an example only. It is not exhaustive and will need to be modified to suit your operation.

Emergency Event	Risk Assessment			Emergency Level	Emergency Services Required	Resources Required	Organisational Aspects
	Likelihood	Consequence	Risk Ranking				
Natural Disasters							
Major Earthquake/ Seismic Event	Rare	Catastrophic	High	L3	Local fire brigade, Police, Ambulance and State Emergency Service on alert.	Ambulance. Firefighting trucks and Water tankers. Plans and maps. Site emergency Response team.	Evacuation of affected workers. Evacuation notice. Communications to emergency services.
Severe Electrical Storm	Possible	Serious	High	L2	Local fire brigade, Ambulance and State Emergency Service on alert.	Site emergency Response team.	Evacuation of affected workers. Communications to emergency services.
Flood	Possible	Serious	High	L2	Ambulance and State Emergency Service on alert.	Site emergency Response team.	Evacuation of affected workers. Communications to emergency services
Bushfire	Possible	Catastrophic	Extreme	L3	Local fire brigade, Police, Ambulance and State Emergency Service on alert.	Ambulance. Firefighting trucks and Water tankers. Plans and maps. Site emergency Response team.	Evacuation of affected workers. Evacuation notice. Communications to emergency services.

Off-site Incidents							
Bus Accident	Unlikely	Catastrophic	High	L2	Local fire brigade, Police, Ambulance.	Site emergency Response team.	Communications
Explosives Truck Accident	Rare	Catastrophic	High	L3	Local fire brigade, Police, Ambulance and State Emergency Service on alert. Explosives specialist advice.	Ambulance. Firefighting trucks and Water tankers. Site emergency Response team. Shotfirers.	Evacuation of affected workers. Evacuation notice. Communications to emergency services.
On-Site Surface							
Light Vehicle Accident	Unlikely	Catastrophic	High	L2	Local fire brigade, Police, Ambulance and State Emergency Service on alert.	Ambulance. Site emergency Response team.	People control. Evacuation of immediate area.
Heavy Vehicle Accident	Unlikely	Catastrophic	High	L2	Local fire brigade, Police, Ambulance and State Emergency Service on alert.	Ambulance. Site emergency Response team.	People control. Evacuation of immediate area.
Hazardous Substance Release	Unlikely	Catastrophic	High	L3	Local fire brigade, Police, Ambulance and State Emergency Service on alert.	Ambulance. Firefighting trucks and Water tankers. Plans and maps. Site emergency Response team.	Evacuation of affected workers. Evacuation notice. Communications to emergency services.
Fixed Plant Incident							

Bulk LPG Leak/ Fire/ Explosion							
Surface Magazine Fire/ Explosion							
Working At Height Incident							
Pit Wall/ Ramp Failure							
Inrush Into Open Pit							
Pit Wall/ Ramp Failure							
Tyre Fire/ Explosion							
Bomb Threat							
On-Site Underground							
Rockfall/ Rock-burst or Ground Collapse	Possible	Catastrophic	Extreme	L3	Local fire brigade, Police, Ambulance and State Emergency Service on alert.	Ambulance. Firefighting trucks and Water tankers. Plans and maps. Site emergency Response team.	Evacuation of affected workers. Evacuation notice. Communications to emergency services.
UGME/ LV Accident							
Underground Fire							
Person/s Trapped							
Major Flooding/ Inrush							

6. Emergency Procedures

6.1 Natural Disasters

6.1.1 Major Seismic Event

A major earthquake or seismic event is one that causes damage to quarry/mine infrastructure and results in a significant disruption to operations.

Main Threats:

- Collapse of quarry/mine infrastructure (e.g. Tails Dam, underground workings, pit walls, mine access ways, surface buildings or structures)
- Loss of access to mine (loss of ramps, portal etc.)
- Induces major fire/ explosion (e.g. LPG or fuel storage)
- Disruption to security/ communications

Likely Alarms: Earthquake likely to trigger security/ other site alarms.

Response:

- Initiate affected area/s Evacuation Alarms
- Initiate Emergency Duty Card system
- Assess likely impact
- Call-out Emergency Response Team
- Secure access to all areas using Emergency Response Team
- Initiate appropriate emergency response (e.g. first-aid, fire, persons trapped underground, explosion etc.)
- Notify Quarry/Mine Manager
- Quarry/Mine Manager to initiate Crisis Management, if required
- Conduct damage assessment of entire site using competent team members (e.g. Geotech Team Leader for underground/ open-pit).
- Report to Government Authorities:
- The Bureau of Meteorology (BoM) website may have information on aftershocks etc.
- Notify contractors & team members of proposed actions

External Help: State Emergency Service.

6.1.2 Major Seismic Event

All critical equipment should be properly earthed or protected by lightning arrestors. Activities in the open (e.g. pit sampling, charging etc.) should be stopped. If struck by lightning, cardiac arrest is likely, so quick response is essential.

Some hazardous activities (e.g. unloading explosive trucks) must cease. Explosive trucks should be parked up in a safe (well-earthed) area such as a workshop.

Main Threats:

- Team members struck by lightning
- Lightning initiating fire or explosion
- Disruption to power/ security systems

Notification:

May get some advance warning from Bureau of Meteorology of severe lightning strikes/ almost instantaneous thunder.

Could be some major power disturbances/ security alarms going off?

Alarms: Site Evacuation Alarm (if fire/ explosion)

Radio call (to stop work & evacuate area)

Response:

- Notify all production team members of approaching storm/s
- Initiate evacuation alarms, if fire or explosion
- Call-out Emergency Services, if support required
- Initiate appropriate emergency response (first-aid/ medical/ fire)
- Isolate any energy sources or hazardous substances (e.g. power, gas, diesel, reagents etc.)
- Notify Local Doctor and/or local Hospital, if required assistance (e.g. for cardiac arrest)
- Shut-down of surface operations, if storm/s severe
- Notify Quarry/Mine Manager
- Inspect affected areas to assess damage (once safe)
- If rubber-tyred equipment struck by lightning, park up in secured/ isolated area for 24 hours

Maintain security of affected areas until Emergency Coordinator gives "All Clear"

Refer to "Emergency Telephone Directory" for Contact Numbers

6.2 Off-Site Incidents

6.2.1 Bus Accident

A bus accident involving team members or members of the public on *(insert name of quarry/mine)* area or on local roads may require response from site team members.

As a bus is likely to be carrying a large number of persons (up to 20), a major medical emergency could result.

The presence of leaking fuel and possibility of having to cut persons out using hydraulic cutting equipment may require an Emergency Response Team or local Fire Brigade call-out.

Main Threats:

- Injury to Team Member/s or other person/s
- Impact on other team members/ public/ local Community

Alarms: None

Response:

- Call-out Emergency Services team members
- Initiate appropriate emergency response (first-aid/ medical/ fire/ triage/ vehicle extrication)
- Notify local Hospital (local doctor)
- Notify Police
- Consider Emergency Response Team call-out, if required
- Notify Ambulance and Fire Brigade
- Secure area using Emergency Services or Emergency Response Team members
- Notify Quarry/Mine Manager
- Quarry/Mine Manager to initiate Crisis Management, if required
- Maintain security of affected area until Police give "All Clear"

External Help:

Local Emergency Services

RFDS (Medical Evacuation)

Local Hospital

Refer to "Emergency Telephone Directory" for Contact Numbers.

6.3 On-Site Surface Incidents

6.3.1 Light Vehicle Incident

Accidents involving light vehicles on site will require response from site team members. The presence of leaking fuel and possibility of having to cut persons out using hydraulic cutting equipment may require an Emergency Response Team call-out and/or local emergency services.

Main Threats:

- Injury to Team Member/s

Alarms: None

Response:

- Call-out Emergency Services team members
- Initiate appropriate emergency response (first-aid/ medical/ fire/ vehicle extrication)
- Initiate Emergency Response Team call-out, if required
- Notify local Hospital (local doctor)
- Notify local emergency services
- Secure area using Emergency Services or Emergency Response Team members
- Notify Quarry/Mine Manager
- Quarry/Mine Manager to initiate Crisis Management, if required
- Notify Contractor Team Leader, if involves contractor team members
- Report to relevant statutory authority
- Maintain security of affected area until Police or regulator give "All Clear"
- Initiate appropriate investigation (may need to maintain security of area until completed)

External Help:

Local emergency services.

Refer to "Emergency Telephone Directory" for Contact Numbers.

6.4 On-Site Underground Incidents

6.4.1 Rock-Fall/Rock-Burst or Ground Collapse

An underground rock-fall or major ground collapse is likely to result in significant injury, equipment damage and disruption to mine production.

The initial response should be to get all team members to a safe place (e.g. fresh air base) and conduct a formal head count. Safe evacuation to surface should then be conducted.

Main Threats:

- Potential for injury to team members
- Impact on Company image (if serious injury)
- Disruption to production

Alarms: Emergency Underground Radio Call.

Response:

- Call-out Emergency Services
- Call-out Emergency Response Team
- Initiate Emergency Duty Card system
- Initiate evacuation to FABs/ Refuge Chambers, if required
- Notify Mine Manager
- Mine Manager to initiate Crisis Management, if required
- Initiate appropriate emergency response (first-aid/ medical/ account for all team members/ search/ rescue/ entrapment, etc.)
- Notify Mining Team Leader and Underground Team Leader
- Notify Geotechnical Team Leader
- Assess situation/ damage & develop Recovery Plan
- Isolate any hazardous energy sources (e.g. power), if required
- Secure mine area using Emergency Services Team members, if required
- Notify local Hospital (local doctor) if injuries occur
- Notify local emergency services
- Notify relevant statutory authorities
- Maintain security of affected area/s until Emergency Coordinator and regulator give "All Clear"

Initiate appropriate investigation (may need to maintain security of area until completed)

External Help:

Local emergency services

Underground Mining Contractor (provision of equipment to assist rescue)

Geotechnical Expert (independent advice/ assist with recovery plan)

Refer to "Emergency Telephone Directory" for Contact Numbers.

FURTHER ASSISTANCE – always include

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION – always include

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

Appendix A – Duty Cards

Note: The duty cards below are examples only and will need to be reviewed and modified to suit your operation.

Duty Card 1

Initiating an Emergency Call

In the event of an Emergency, the person initiating the emergency call should:

Remain CALM and speak clearly	<input type="checkbox"/>
<p>Call “EMERGENCY – EMERGENCY – EMERGENCY”</p> <p>Await response, if no response within 3 seconds, check radio channel and repeat call until answered.</p> <p>When answered give:</p> <ol style="list-style-type: none"> 1. Your name 2. Location of emergency 3. Nature of emergency (fire, first aid, rescue, etc.) 4. Assistance required <p>Repeat the message to ensure that it has been clearly understood.</p>	<input type="checkbox"/>
Check for DANGER, and then provide assistance to your level of competence. DO NOT put yourself at risk.	<input type="checkbox"/>
Follow the instructions of the On-Scene Controller and either assist or leave the scene as instructed.	<input type="checkbox"/>

NO EMERGENCY DETAILS ARE TO BE RELEASED TO ANY UNAUTHORISED PERSONS

Duty Card 2

On-Scene Controller

In the event of an emergency, the area Supervisor will assume the role of On-Scene Controller and apply this duty card

<p>Answer the emergency call, and prompt caller for details.</p> <p>Determine:</p> <ul style="list-style-type: none"> • Name of the caller • Location of the emergency • Nature of the emergency • Immediate assistance required 	<input type="checkbox"/>
Request an Emergency Coordinator to immediately establish an Emergency Control Centre.	<input type="checkbox"/>
Proceed to the emergency scene, assess the situation and secure the scene.	<input type="checkbox"/>
Check for DANGER to self and other before responding.	<input type="checkbox"/>
Evacuate or withdraw personnel from danger, as necessary.	<input type="checkbox"/>
Check injured persons and arrange first aid as necessary.	<input type="checkbox"/>
Call and mobilise resources until the emergency control centre is established.	<input type="checkbox"/>
<p>Manage and coordinate the emergency response, including:</p> <ul style="list-style-type: none"> • Having the Emergency Vehicle / Trailer and, if necessary, lighting plants brought to the scene. • Ensure the emergency area is secured and is safe for responding personnel to enter • Manage and coordinate on-scene activities and response personnel 	<input type="checkbox"/>
<p>Call Emergency Coordinator with request for additional resources, if and when required, including:</p> <ul style="list-style-type: none"> • Water truck • First aiders • External emergency services (fire, ambulance, SES, police) 	<input type="checkbox"/>

Hand over to relief On-Scene Controller if prolonged response is required; or more senior controller arrives.	<input type="checkbox"/>
Inform the Emergency Coordinator when the on-scene response is completed and/or current status.	<input type="checkbox"/>
Monitor and oversee the overall safety of the emergency response activities.	<input type="checkbox"/>
The area Supervisor is responsible for initiating the incident investigation.	<input type="checkbox"/>
Attend de-briefing after the event as necessary.	<input type="checkbox"/>

PRESERVATION OF LIFE AND PREVENTION OF FURTHER INJURY IS CRITICAL

Duty Card 3

Emergency Coordinator

Name of the Emergency Coordinator: _____

Date: _____ Time Emergency Call Received: _____

Upon being notified of an emergency, the Emergency Coordinator will apply this duty card.

Establish the Emergency Control Centre and notify the On-Scene Controller when ready.	<input type="checkbox"/>
Call and mobilise external back-up (if required) by calling 000 from a landline or 112 from a mobile phone.	<input type="checkbox"/>
Establish the emergency classification level: LEVEL 1: <input type="checkbox"/> LEVEL 2: <input type="checkbox"/> LEVEL 3: <input type="checkbox"/>	<input type="checkbox"/>
Call and/or verify the status of additional internal or external resources required, e.g.: <ul style="list-style-type: none"> • Emergency Response Team • First Aiders • Water Truck • Mobile Plant • Escorts for resources 	<input type="checkbox"/>
Notify relevant persons and regulatory authorities as required.	<input type="checkbox"/>
Seek assistance, e.g. assign someone to document events, maintain logs, etc.	<input type="checkbox"/>
Maintain communications and record events and dispatch of resources in the Emergency Log.	<input type="checkbox"/>
Hand over to relief Emergency Coordinator if continuation of a prolonged response is required.	<input type="checkbox"/>
Communicate the “all clear” at the completion of the emergency, or advise personnel when specific operations may resume.	<input type="checkbox"/>

Duty Card 3

Emergency Coordinator

EMERGENCY COMMUNICATION LOG AND DETAILS

Date: _____ Time of Incident: _____ Name of Caller: _____

Location: _____ Nature of Emergency: _____

Assistance Required:

Internal:

- Site First Aiders ☐

Emergency Response Team ☐

Water Truck ☐
- Mobile Plant ☐

Crane/Lifting Device ☐

Electrician ☐

External:

- Ambulance ☐

Fire ☐

SES ☐

Other: _____ ☐

Site Location:

Insert a full and detailed description of the sites location.

Duty Card 3

Emergency Coordinator

RESOURCE LOG**The following assistance may need to be called – tick and note time of call**

External	Called	Arrived	Departed
Ambulance	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Fire	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
SES	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Police	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Other: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____

Internal	Called	Arrived	Departed
Area Supervisor	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Emergency Response Team	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
First Aiders	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Water Truck	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Electrician	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____

Maintenance Fitters	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
CEO	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Emergency Services Escort	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Boom Gate secure open	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Emergency Siren	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Radio Silence	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____
Other: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____	<input type="checkbox"/> Time: _____

**NO EMERGENCY DETAILS ARE TO BE RELEASED TO UNAUTHORISED PERSONS
(E.G. MEDIA) WITHOUT THE QUARRY/MINE MANAGERS PERMISSION**

Duty Card 3

Emergency Coordinator

COMMUNICATION LOG – PHONE / TWO-WAY RADIO

Time	Name	Message	Notified (who)

Duty Card 3
Emergency Coordinator

COMMUNICATION LOG – PHONE / TWO-WAY RADIO

Time	Name	Message	Notified (who)

Duty Card 3
Emergency Coordinator

EMERGENCY COORDINATOR – COMMS – RELIEF HAND OVER

Date	Time	Off-Going	On-Coming

Duty Card 4

Wardens

The Area Wardens role is to ensure personnel are evacuated to emergency assembly points and are accounted for.

In the event of FIRE or other emergency events in their area, e.g. emergency call or fire alarm activated, appointed Wardens will apply this duty card.

As far as is practical, establish the location and severity of the emergency event.	<input type="checkbox"/>
Where relevant, collect the visitors sign in register/book.	<input type="checkbox"/>

Put on Wardens RED helmet.	<input type="checkbox"/>
Move to the relevant Emergency Assembly Point, ensuring it is up wind of any smoke or hazardous substances.	<input type="checkbox"/>
Account for personnel, including visitors.	<input type="checkbox"/>
Report any missing persons to the Emergency Coordinator.	<input type="checkbox"/>
Remain at the Emergency Assembly Point until the emergency has ceased and the “all clear” is given.	<input type="checkbox"/>
Attend the de-briefing session.	<input type="checkbox"/>

PRESERVATION OF LIFE AND PREVENTION OF FURTHER INJURY IS CRITICAL

Duty Card 5

Emergency Response Team

Upon hearing an emergency call, or being notified, Emergency Response Team Members will apply this duty card.

As far as practical, establish the location and severity of the emergency event.	<input type="checkbox"/>
Check communication equipment and remain in contact.	<input type="checkbox"/>

Mobilise emergency equipment to the emergency scene.	<input type="checkbox"/>
Muster as a team and report to the On-Scene Controller, upon arrival.	<input type="checkbox"/>
Check for DANGER to self and others before responding at the scene.	<input type="checkbox"/>
Respond as requested by the On-Scene Controller or the Emergency Coordinator.	<input type="checkbox"/>
Assist with injured persons and apply First Aid as required.	<input type="checkbox"/>
Attend de-briefing session.	<input type="checkbox"/>

PRESERVATION OF LIFE AND PREVENTION OF FURTHER INJURY IS CRITICAL

Duty Card 6

First Aiders

Upon hearing an emergency call, or being notified, First Aiders will apply this duty card.

As far as practical, establish the location and severity of the emergency event.	<input type="checkbox"/>
Check first aid supplies and remain in contact.	<input type="checkbox"/>

Prepare to mobilise.	<input type="checkbox"/>
If requested, travel to the emergency scene to assist and report to the On-Scene Controller upon arrival.	<input type="checkbox"/>
Check for DANGER to self and others before responding at the scene.	<input type="checkbox"/>
Respond as requested by the On-Scene Controller or the Emergency Coordinator.	<input type="checkbox"/>
Assist with injured persons and apply First Aid as required.	<input type="checkbox"/>
Attend de-briefing session.	<input type="checkbox"/>

PRESERVATION OF LIFE AND PREVENTION OF FURTHER INJURY IS CRITICAL

Duty Card 7

Water Truck Operator

Upon hearing an emergency call, or being notified, Water Truck Operators will apply this duty card.

As far as practical, establish the location and severity of the emergency event.	<input type="checkbox"/>
Check water level and advise On-Scene Controller when ready.	<input type="checkbox"/>

Prepare to mobilise.	<input type="checkbox"/>
If requested, travel to the emergency scene to assist and report to the On-Scene Controller upon arrival.	<input type="checkbox"/>
Follow instructions of the On-Scene Controller.	<input type="checkbox"/>
Provide assistance with firefighting as required.	<input type="checkbox"/>
If ELECTRICAL FIRE – DO NOT attempt to apply water unless electrician has verified power is disconnected.	<input type="checkbox"/>
If HEAVY EQUIPMENT FIRE – DO NOT attempt to approach fire unless the On-Scene Controller has verified that tyres are not heated or on fire.	<input type="checkbox"/>
Attend de-briefing session.	<input type="checkbox"/>

PRESERVATION OF LIFE AND PREVENTION OF FURTHER INJURY IS CRITICAL

Duty Card 8

Workers

Upon hearing an emergency call, or being notified of an emergency event on-site, all workers will:

Cease operations and adhere to radio silence.	<input type="checkbox"/>
If evacuation is required: <ul style="list-style-type: none"> Follow instructions of the Warden or Supervisor; 	<input type="checkbox"/>

<ul style="list-style-type: none">• Evacuate to the nearest Emergency Assembly Point; and• Remain at the emergency assembly point until the “all clear” is given.	
If competent and requested to, assist with the emergency response.	<input type="checkbox"/>
Stand-by and await instructions from the Emergency Coordinator, before resuming operations.	<input type="checkbox"/>
NO EMERGENCY DETAILS ARE TO BE RELEASED TO UNAUTHORISED PERSONS	

PRESERVATION OF LIFE AND PREVENTION OF FURTHER INJURY IS CRITICAL

Duty Card 9

WHS Coordinator

The WHS Coordinators role is to provide support to Emergency Response Personnel during an emergency and in the incident investigation and analysis.

Upon hearing an emergency call, or being notified, the WHS Coordinator will apply this duty card.

If requested, travel to the emergency scene to assist and report to the On-Scene Controller upon arrival.	<input type="checkbox"/>
Liaise with the On-Scene Controller and Emergency Coordinator and provide assistance as required.	<input type="checkbox"/>
Check that the correct emergency classification has been identified and appropriate response has been activated.	<input type="checkbox"/>
Assist with securing the scene, if required.	<input type="checkbox"/>
Check existing security arrangements.	<input type="checkbox"/>
Arrange for barricades to be established if not already in place.	<input type="checkbox"/>
Act as site liaison with external emergency services.	<input type="checkbox"/>
Coordinate the de-briefing session	<input type="checkbox"/>
Coordinate the incident investigation and analysis.	<input type="checkbox"/>
Ensure all equipment used during the emergency is returned to a “ready” state.	<input type="checkbox"/>

Duty Card 10

Quarry/Mine Manager

The Quarry/Mine Managers role is to provide resources to support the emergency response personnel and to ensure all incident reporting, notifications and investigations are conducted.

Upon hearing an emergency call, or being notified, the Quarry/Mine Manager will apply this duty card.

If requested, travel to the emergency scene to assist and report to the On-Scene Controller upon arrival.	<input type="checkbox"/>
Determine the following: <ul style="list-style-type: none"> • What is the emergency? • Where is the emergency? • When did it start and what is the status? • Any known fatalities or significant injuries? • Have external authorities been notified? 	<input type="checkbox"/>
Notify relevant statutory authority, SafeWork SA, EPA, DSD, etc.	
Where a crisis has been declared, contact the crisis management team.	
Monitor the situation, liaise with the Emergency Coordinator.	
Provide updates to the crisis management team	
Attend the de-briefing session	
Ensure that an incident investigation and analysis is conducted.	

Duty Card 11

CEO

The CEO's role is to provide resources to oversee crisis management and provide resources and support to the crisis management team.

Upon being notified of a LEVEL 3 Emergency (Crisis), the CEO will apply this duty card.

Provide support to the Quarry/Mine Manager	<input type="checkbox"/>
Provide resources and support to the crisis management team.	<input type="checkbox"/>
Verify that corporate and statutory notifications and reporting requirements are met.	<input type="checkbox"/>
Verify that adequate risk management processes are established to reduce or mitigate adverse impacts.	<input type="checkbox"/>
Verify that appropriate support is provided to injured persons and/or next of kin.	<input type="checkbox"/>
Liaise with insurance companies/underwriters.	<input type="checkbox"/>
Convene and/or attend crisis management team meetings, as necessary.	<input type="checkbox"/>
Seek legal advice, as required.	<input type="checkbox"/>
Attend the de-briefing session after the crisis is terminated.	<input type="checkbox"/>

Appendix B – Site Survey Plan

(insert a copy of your sites survey plan) Plan must include as a minimum:

- Emergency facilities, including:
 - Emergency assembly points;
 - First aid kits and or first aid rooms;
 - Fire extinguishers and hydrants;
 - Other relevant emergency equipment.
 - Site services (e.g. electrical and gas) particularly underground services and power lines;
 - Location of buildings and structures (e.g. offices, workshops and fixed plant)
 - Old mine/quarry workings; and
- Location of any hazardous substances stored on site.

Appendix C – Emergency Equipment

Note: The below list is an example only and will need to be reviewed and modified to suit your operation.

Type of Emergency Equipment	Location of Equipment
Fire extinguishers	Located in all buildings, workshop and in all vehicles.
Fire hydrants	Front of Workshop, Front of Admin Office, Adjacent Bulk LPG storage.
Fire Hoses	Located in cabinets at each hydrant
Self-Contained Breathing Apparatus (SCBA) x 10	Located in Emergency Response Team equipment shed.
Acid suits x 6	Located in Emergency Response Team equipment shed.
Additional PPE	Located in Emergency Response Team equipment shed.
Gas detectors x4	Located in Emergency Response Team equipment shed.
Rescue Harness x 6	Located on the Emergency Response vehicle
Ropes	Located on the Emergency Response vehicle
First aid kits	Located in all buildings In all vehicles
Specialised First Aid kits	Located on the Emergency Response vehicle
First aid room	Located in main admin building
Emergency Radios	Located in weighbridge office
Fire indicator panel	Located in the main admin building
Emergency lighting	Located in Emergency Response Team equipment shed.
Emergency Response Vehicle	Located in Emergency Response Team equipment shed.
Hazardous substance spill kits	Located in front of workshop Located at bulk oil storage area Located on the Emergency Response vehicle
Others	



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Withdrawal of Workers to Safety Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

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Withdrawal of Workers to Safety Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on the legislative requirement of withdrawing workers (inclusive of contractors and visitors) to a place of safety when required.

Introduction

Due to the nature, location and the environment of mining and quarrying operations, there are hazards and risks present that, at times, will require workers to be withdrawn to a place of safety.

The *Work Health and Safety Regulations 2012 (SA) Regulation 622(1h)* states:

1. *The safety management system document for a mine must set out the following:*
 - h. the procedures and conditions under which persons at the mine or a part of the mine are to be withdrawn to a place of safety and to remain withdrawn as a precautionary measure where risk to health and safety warrants withdrawal.*

1. When to withdraw workers?

As stated in the introduction, due to the nature location and environmental conditions of mining and quarrying operations, there are often hazards and risks to workers health and safety that will require them to be withdrawn to a place of safety.

Some examples of potential scenarios that would require workers to be withdrawn to a place of safety include:

- During blasting activities;
- During electrical storms;
- In the event of severe dust (either from storms or operational activities);
- In the event of certain emergency scenarios, such as:
 - Bushfire;
 - Fire on site;
 - Chemical spills; and
 - Bomb threats.

Note: *The above list is not exhaustive and is a guide only.*

2. Identifying potential scenarios

As with all risks to workers health and safety, the first step to identifying hazardous situations that will require the withdrawal of workers, is to consult with workers. This can be achieved by consulting with the Health and Safety Committee and Health and Safety Representatives (HSRs) if in place or alternatively through toolbox meetings.

Note: *Documented records of this consultation shall be required to be maintained.*

It will also be beneficial to review your Hazard and Risk Register and your Incident Register to assist in the identification process.

3. Risk Management

Once all potential scenarios that will require workers to be withdrawn to a place of safety have been identified, a risk assessment shall be required to be conducted (in consultation with workers) on each scenario identified. This will enable controls to be identified and implemented.

Additionally, the risk assessments will assist in determining the appropriate place of safety to withdraw workers to, this may be to an Emergency Assembly Point (in the event of an emergency) or simply to the crib room (in the event of an electrical storm).

4. Preparing procedures

Upon completion of the risk assessments, detailed procedures will need to be developed and implemented (in consultation with workers) for each scenario. In some circumstances the procedure for withdrawing workers may be incorporated into other procedures, such as for blasting activities.

The withdrawal procedures need to clearly identify:

- What conditions / events that will initiate a withdrawal to safety;
- The responsible person/s for ensuring withdrawal;
- Where workers are to be withdrawn to; and
- What conditions deem it safe to return to work?

It is important to note that procedures for the withdrawal of workers that are as a result of emergency scenarios will need to be incorporated and referenced in the site Emergency Plan.

5. Information, training and instruction

Once all procedures relating to the withdrawal of workers to safety have been developed and implemented, all workers, inclusive of contractors and visitors, will need to be provided with training and instruction, in relation to the procedures.

Note: *Documented records of the information, training and instruction shall be required to be maintained in the site training and qualifications register and in personal training files.*

Providing of information, training and instruction of withdrawal to safety procedures for new workers, inclusive of contractors and visitors, could be incorporated into the sites induction process.

6. Review

All procedures relating to the withdrawal of workers to safety shall be reviewed at a minimum of three yearly or sooner following an event that required workers to be withdrawn to a place of safety.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

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Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Regulations 2012 (SA)

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Forward

An incident is any occurrence that has resulted in or has the potential to result in adverse consequences to persons, the environment, property or a combination of these; this also includes any significant deviation from a safe operating procedure (or the like).

In the unfortunate event of an incident occurring at your site, you have a duty under the South Australian Work Health and Safety legislation to ensure the incident is investigated and in certain circumstances, reported to the Regulator.

Having an effective incident reporting and investigation process in place will not only enable you meet your legislative obligations but provide you with the tools to gather and analyse information and facts relating to the incident. This will then enable you (and the investigation team) to identify the “contributing factors” that lead up to the incident and finally to identify controls to prevent the incident reoccurring.

Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation’s structure.

1. Remove all **“(insert company name)”** sections and replace with registered business name
2. Remove all **“(insert name of quarry/mine)”** sections and replace with quarry/mine pit name
3. Remove all **“(insert senior management position e.g. site manager)”** and replace with relevant position
4. Remove all **“(insert location)”** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all **“Note”** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Work Health and Safety Information and Training Procedure Template

*(Insert Company Name and Company
Logo or Site Photo)*

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1. AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on how to develop and implement an effective Work Health and Safety Information and Training process.

2. Purpose

The purpose of the *(insert company name)* Work Health and Safety Information and Training Procedure is to provide details of the training management system requirements, and the training and assessment methodology for *(insert company name)* personnel and contracting partners at the *(insert name of quarry/mine)* operations.

3. Scope

This procedure applies to all *(insert company name)* workers, contractors and visitors when involved in *(insert company name)* controlled activities.

4. Definitions

Individual Training File	Individual files where all personal training records are held (electronic or paper based).
Qualification	The qualification received upon completion of a training event (e.g. attending a course, on-the-job training, competency assessment undertaken, attending an information session).
Role Requirements	The competencies required to perform a specific role.
Training and Qualifications Register	An electronic register of all personnel's (inclusive of contractors) training records.
Training Record	Evidence of training completion (e.g. assessment instruments / attendance sheets / certificates of completion / copies of licences).
Verification of Competency (VoC)	A person has answered underpinning knowledge questions to display knowledge, comprehension and understanding of the task requirements and has practically demonstrated the required skills of the task.

5. References

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

(insert company name) Training Needs Analysis

(insert company name) Training and Qualifications Register

(insert company name) Verification of Competencies

6. Information, Training and Instruction System Requirements

No Person shall operate plant / equipment or undertake a nominated task unless they have been assessed and deemed competent to do so by an authorised person from *(insert company name)*.

(insert company name) Management, Supervisors and Contractors are responsible for ensuring:

- All workers (inclusive of contractors) have completed *(insert name of quarry/mine)* inductions;
- All workers (inclusive of contractors) have been provided with information, training and instruction appropriate to the role;
- All workers (inclusive of contractors) have been assessed and deemed competent prior to operating any plant and equipment or undertaking nominated tasks;
- Where applicable workers qualified to the applicable state or nationally legislated standard, by holding the appropriate:
 - Trade certificate
 - High Risk Work Licence issued by a SafeWork SA approved provider (see appendix A)
 - Mobile equipment / vehicle licence
 - Certificate, Diploma or Degree as required by the role; and
- Accurate records of all training records are maintained.

7. Procedure

7.1. Training Needs Analysis (TNA)

The Training Needs Analysis (TNA) shall detail the required qualifications for each role. To understand the requirements of the role, the processes and tasks performed shall to be mapped and understood to ensure the appropriate skills are identified.

The Training Needs Analysis shall also take into account the acquisition and maintenance of:

- Safe operating procedures and work instructions for the task, role and area;
- Other specific legislative, operational and licence training;
- Identification of on-the-job specific training;
- Identification of operational training required to support on-the-job specific training (e.g. relevant area inductions, safety training, licensing, etc.).

Note: See the *MAQOHSC Training Needs Analysis Template*.

7.2. Role Requirements

All operational roles shall have the training requirements identified and documented through the training needs analysis, and reviewed as a minimum on a *(insert timeframe e.g. 2 yearly)* basis to ensure their accuracy. Position descriptions shall detail the required knowledge, skills and experience for the role and include on-the-job and off-the-job training requirements.

7.3. Training Compliance Reporting

It is the responsibility of contracting companies to ensure a system is in place to record training completions of personnel and report as required on training compliance to role requirements.

7.4. Information, Training and Assessment Elements

7.4.1. Identify the required competencies

The required competencies for each role are identified by the minimum competencies for a worker, as provided with site inductions.

Role competencies are further identified by position descriptions and the procedures for nominated tasks.

7.4.2. Theory assessments

All significant tasks on site shall be accompanied by *(insert type of document e.g. Safe work procedures or safe work instructions)*.

Based on the complexity and risk associated with the task, a sign off of acknowledgement shall be required, more complex tasks will require a theory assessment to test comprehension of the procedure. A theory assessment shall be completed before the use of any plant or equipment on site.

7.4.3. Information and training

On the successful completion of a theory assessment, practical training in the activity can commence with the worker. This shall include familiarisation with the equipment and task, supervised usage of equipment and undertaking a task with the assistance of a competent operator.

7.4.4. Verification of Competency (VoC)

After a period of training and supervision while undertaking activities, the worker may elect to undergo a competency assessment or be recommended to undergo a competency assessment by their supervisor.

Training at *(insert company name)* is a competency based system. *(insert timeframe e.g. 40 Hours)* hours of machinery operation is used as a guide for competency assessments; however, is not a minimum or maximum requirement.

Competency assessments are to be completed by a competent person.

Where a worker is deemed “not yet competent” then the assessor will advise the workers direct supervisor that further training is required before a reassessment of competency can be conducted. Feedback shall be given to the worker in the areas in which improvement is required.

7.4.5. Completion of Competency

Any plant or equipment competency achieved by a worker, shall be documented and forwarded to the *(insert senior management position e.g. site manager)* for the authorisation of unrestricted use of the plant or equipment.

The final assessment as competent and / or authorisation to use the plant or equipment shall then be entered into the site training records by the *(insert company position e.g. site administrator)*.

7.4.6. Review of Competency

A workers competencies shall be reviewed at differing intervals depending on the task complexity, frequency of the task being performed and at the discretion of supervisors or management. The competency may require a complete reassessment or may utilise a “bump” test where key items in the competency are assessed.

On the completion of a reassessment of the workers competency, the relevant evidence of assessment will be forwarded to the *(insert company position e.g. site administrator)* to update the site training records.

FURTHER ASSISTANCE

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Appendix A: High Risk Work Licence Classifications

Licence Class	Code	VET accredited course
Basic Scaffolding	SB	Licence to erect, alter and dismantle scaffolding basic level
Intermediate Scaffolding	SI	Licence to erect, alter and dismantle scaffolding basic and intermediate level
Advanced Scaffolding	SA	Licence to erect, alter and dismantle scaffolding basic and intermediate and advanced level
Dogging	DG	Licence to perform dogging
Basic Rigging	RB	Licence to perform dogging and rigging basic level
Intermediate Rigging	RI	Licence to perform dogging, rigging basic and intermediate level
Advanced Rigging	RA	Licence to perform dogging, rigging basic, rigging intermediate and rigging advanced level
Tower Crane	CT	Licence to operate a tower crane
Self-Erecting Tower Crane	CS	Licence to operate a self-erecting crane
Derrick Crane	CD	Licence to operate a derrick crane
Portal Boom Crane	CP	Licence to operate a portal boom crane
Bridge and Gantry Crane	CB	Licence to operate a bridge and gantry crane
Vehicle Loading Crane	CV	Licence to operate a vehicle loading crane (capacity 10 metre tonnes and above)
Non-Slewing Mobile Crane	CN	Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)
Slewing Mobile Crane – Up to 20 tonnes capacity	C2	Licence to operate a slewing mobile crane (up to 20 tonnes)
Slewing Mobile Crane – Up to 60 tonnes capacity	C6	Licence to operate a slewing mobile crane (up to 60 tonnes)

Slewing Mobile Crane – Up to 100 tonnes capacity	C1	Licence to operate a slewing mobile crane (up to 100 tonnes)
Slewing Mobile Crane – with capacity over 100 tonnes	C0	Licence to operate a slewing mobile crane (over 100 tonnes)
Materials Hoist	HM	Licence to operate a materials hoist
Personnel and Materials Hoist	HP	Licence to operate a personnel and materials hoist
Boom-Type Elevating Work Platform	WP	Licence to operate a boom-type elevating work platform (boom length 11 metres or more)
Concrete Placing Boom	PB	Licence to conduct concrete boom delivery operations
Reach Stacker	RS	Licence to operate a reach stacker of greater than 3 tonne capacity
Forklift Truck	LF	Licence to operate a forklift truck
Order-Picking Forklift Truck	LO	Licence to operate an order picking forklift truck
Standard Boiler Operation	BS	Licence to operate a standard boiler
Advanced Boiler Operation	BA	Licence to operate a standard boiler and an advanced boiler
Steam Turbine Operation	TO	Licence to operate a steam turbine
Reciprocating Steam Engine Operation	ES	Licence to operate a reciprocating steam engine

The above table is an extract from the SafeWork SA, *Guide for Applicants for Accreditation of Assessors for High Risk Work Licences*.

8. Revision

This Procedure will be revised as required and at no later than two years from the date of last major revision

Revision	Review / Edit Date	Reason for Review	By whom reviewed

Signed: _____
(insert senior management position e.g. site manager)

Date: _____



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Safe Operating Procedures Guide

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Safe Operating Procedures Guide

AIM

The aim of this Guidance Material is to provide a Person Conducting a Business or Undertaking (PCBU) with practical guidance on Safe Operating Procedures (SOPs).

Forward

Documenting procedures and eliminating unplanned approaches to workplace health and safety are a vital part of your legislative responsibility to provide and maintain a safe working environment. Safe operating procedures are a critical component of this responsibility to provide a systematic and organised approach to workplace safety.

1. What is a Safe Operating Procedure?

A safe operating procedure (SOP) is a written document that provides step-by-step instructions on how to safely perform a task or activity which involves some risk to health and safety. A safe operating procedure is sometimes referred to as a safe work procedure or safe work method statement.

2. When do I need a Safe Operating Procedure?

Safe operating procedures may need to be developed as a risk control measure:

- When indicated from the outcomes of a risk assessment carried out in accordance with legislative requirements to identify hazards and manage risks to health and safety;
- When introducing new work practices;
- When introducing new equipment / technology; or
- Following on from a workplace inspection, either internal or external (i.e. regulatory inspection).

Note: *The above list is not exhaustive and should be used as a guide only.*

3. Risk Management

As a safe operating procedure is a risk control measure designed to ensure the health and safety of workers and others. The first step in developing a safe operating procedure is to conduct an assessment of the task. This involves the use of a Job Safety Analysis (JSA), sometimes referred to as a Job Safety Environment Analysis (JSEA), Task Hazard Analysis (THA), or Job Hazard Analysis (JHA).

Note: See the MAQOHSC Hazard Identification and Risk Management Guide and Job Safety Analysis Template for further assistance and guidance.

4. Content of a Safe Operating Procedure

A safe operating procedure should include:

- The task / process to be undertaken;
- Details of any legislative requirements that are appropriate and have been considered in the safe operating procedure, e.g. for high risk tasks, forklift operations, confined space entry, hot works, etc.;
- Definitions of any specialised or unusual terms;
- Specific information regarding the potential hazards and associated risks of the task;
- Precautions required to eliminate or adequately control the risk prior to commencing the task, such as isolation procedures, ensuring guarding is in place, communication procedures, etc.;
- Personal protective equipment (PPE) required to be worn while undertaking the task, (this includes site standard personal protective equipment);
- The environment where the task shall or should be undertaken;
- Clear and simple instructions for undertaking the task in a safe manner;
- Correct environmental, cleanup and waste disposal measures, this will require referring to any appropriate safety data sheets (SDSs);
- Emergency procedures; and
- Shutdown and housekeeping.

Each safe operating procedure must be dated and assigned a document control number, a version number, an issue date, a review date and detail the document owner and approver.

Note: See the Safe Operating Procedure Template, Appendix A.

5. How to prepare a Safe Operating Procedure

Safe operating procedures should be written using plain English and must be set out in a concise, logical, step-by-step, easy-to-read format. The use of photos or diagrams may assist with this process.

Reference to the manufacturer's or supplier's user manuals or information may be required to assist in providing accurate information.

The safe operating procedure should be written and developed in consultation with workers (inclusive of any elected Health and Safety Representatives HSRs) and others involved in the task.

Note: Documented records of the consultation will need to be recorded and maintained. The MAQOHSC Document Review Form Template will be of assistance.

5.1. Sequence of job steps

Break down the task or operation into the basic steps to complete the work task and / or operate the item of plant / equipment. For example, what is done first, what is done next and so on.

Record each step of the task in the order of normal sequence, making sure you describe what is done, not how it is done. As a working guide, the task description should be contained within approximately 10 broad steps. This of course may vary depending on the complexity and the hazardous nature of the job.

5.2. Potential hazards / risks

For each step in the work task, list the potential hazards / risks that are reasonably foreseeable.

This may include, but is not limited to:

- Being struck by or contacted by anything;
- Striking against or contacting anything;
- Being caught in, on, under or between anything;
- Falling from height or being exposed to falling objects;
- Hazardous manual tasks;
- Being exposed to welding rays, fumes, light, electricity or other forms of energy;
- Being exposed to stored energy; or
- Being exposed to hazardous chemicals.

5.3. Recommended control measures

For each step in the work task, list the most appropriate risk control measure that will eliminate or minimise the risk to the person(s) completing the work task.

For each potential hazard / risk, identify and list the steps of how the work task is to be completed, including what the operator(s) should or should not do to manage the level of risk. Specifically describe the safe operating procedure and precautions that must be taken for each step.

Attach any appropriate information or references. A safe operating procedure may reference other safe operating procedures.

5.4. Personal Protective Equipment (PPE)

List the types of Personal Protective Equipment that is required to be used whilst undertaking the task.

Note: *This includes site standard Personal Protective Equipment.*

5.5. Perform the task

Test the written procedure by carrying out the task in accordance with the documented safe operating procedure, completing the following checks:

- Inspect the task again;
- Check the upstream and downstream tasks that may have an impact;
- Seek improvement to the work method;
- Consider all hazards at each step;
- Ensure understanding in the work group or an individual worker of the hazards associated with each step of the procedure; and
- Reassess and modify the safe operating procedure, as required.

Note: *Each time the safe operating procedure is modified a new version shall need to be recorded.*

6. Training

Training and instruction on the safe operating procedure must be provided to all persons that shall be required to undertake the task / process for which the safe operating procedure was developed. This may include a verification of competency (VOC) for operational procedures, such as for loaders, crushers, dump trucks, cutting saws, etc.

Note: *See the MAQOHSC Verification of Competency Guide for further information.*

A record of the completed training must be maintained.

Note: *See the MAQOHSC Training and Qualifications Register.*

7. Review of Safe Operating Procedures

Safe operating procedures should be reviewed on a periodic basis, e.g. every 2 years, depending upon the level of risk, to ensure that the procedure remains current and appropriate.

Reviews of safe operating procedures will be required sooner than two years in the event:

- An incident occurs that relates to the safe operating procedure;
- There has been a change to a process;
- New plant or equipment is introduced; or
- New chemicals or substances are introduced.

If a safe operating procedure describes a task or process that is no longer required to be followed, then the safe operating procedure should immediately be withdrawn and archived.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

Appendix A: Safe Operating Procedure Template *(ensure to delete)*

Document No:		Version Number:	
Issue Date:		Review Date:	
Document Owner:		Signature:	
Approver:		Signature:	

Task Description	
Competencies (Licences and competencies required to perform the work)	
Tools and Equipment (Any additional tools and equipment required to perform the task)	
Chemicals and Substances (Chemicals or substances that will be used to perform the work)	
Isolations required (Does this task require any isolations, e.g. for performing maintenance tasks on plant or equipment)	
Permits required (Such as Hot Work Permit, Working at Heights Permit, Confined Space Entry Permit)	
References (Documents that are to be referred to when performing the task, e.g. other safe operating procedures, legislative requirements, etc.)	

ANY PROBLEMS, MALFUNCTIONS OR DAMAGE TO EQUIPMENT OR GUARDING MUST BE REPORTED TO YOUR SUPERVISOR			
Steps and Safety Instructions How to do the work in the right order including safety instructions		Hazards Applicable at each step in the work process (refer Job Safety Analysis)	Risk Controls
1.			
2.			

ANY PROBLEMS, MALFUNCTIONS OR DAMAGE TO EQUIPMENT OR GUARDING MUST BE REPORTED TO YOUR SUPERVISOR

Steps and Safety Instructions How to do the work in the right order including safety instructions		Hazards Applicable at each step in the work process (refer Job Safety Analysis)	Risk Controls
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

Insert Company Logo
Here

Title_____

Safe Operating Procedure

I have read and understand the procedure described above and are aware of my legal obligation to follow the procedure.

Where I have identified this procedure to be incorrect or incomplete, I will immediately report it to my Supervisor and conduct a risk assessment to ensure adequate controls are in place to manage the hazard before commencing the task.

Signed_____

Print Name_____

Date_____

Supervisor Signature_____

Note: *This section is to be removed and recorded in the workers training file.*

Mining and Quarrying
Occupational Health and
Safety Committee
Level 2, Torrens Building
220 Victoria Square
Adelaide SA 5000

Telephone (08) 8204 9842
www.maqohsc.sa.gov.au



Document No:		Version Number:	
Issue Date:		Review Date:	
Document Owner:		Signature:	
Approver:		Signature:	

Task Description	
Competencies (Licences and competencies required to perform the work)	
Tools and Equipment (Any additional tools and equipment required to perform the task)	
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Isolations required (Does this task require any isolations, e.g. for performing maintenance tasks on plant or equipment)	
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References (Documents that are to be referred to when performing the task, e.g. other safe operating procedures, legislative requirements, etc.)	

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1.			
2.			
3.			

ANY PROBLEMS, MALFUNCTIONS OR DAMAGE TO EQUIPMENT OR GUARDING MUST BE REPORTED TO YOUR SUPERVISOR

Steps and Safety Instructions How to do the work in the right order including safety instructions		Hazards Applicable at each step in the work process (refer Job Safety Analysis)	Risk Controls
4.			
5.			
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7.			
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12.			

I have read and understand the procedure described above and are aware of my legal obligation to follow the procedure.

Where I have identified this procedure to be incorrect or incomplete, I will immediately report it to my Supervisor and conduct a risk assessment to ensure adequate controls are in place to manage the hazard before commencing the task.

Signed _____

Print Name _____

Date _____

Supervisor Signature _____

Note: *This section is to be removed and recorded in the workers training file.*



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Verification of Competency Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

Users should always verify historical material by making and relying upon their own separate inquiries prior to making any important decisions or taking any action on the basis of this information.

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Website: www.maqohsc.sa.gov.au

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Verification of Competency Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on the Verification of Competency (VOC) process.

Forward

In many sections of the *Work Health and Safety Regulations 2012* (SA), there is a requirement to ensure that workers and others are provided with information, training and instruction and to ensure that workers are competent to undertake work related tasks.

1. What is Competency?

The *Work Health and Safety Regulations 2012* (SA), define a “competent person” as “a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task”.

Competencies serve as the basis for skill standards that specify the level of knowledge, skills and abilities required to safely and successfully complete a task as well as the measurement criteria for assessing the competency.

Competency is a measure of both proven knowledge and proven skills.

2. How is competency assessed or verified?

Competency assessment is the formal process of collecting evidence of the competencies (knowledge and skills) a worker has developed and achieved through:

- A structured learning environment;
- On the job training;
- Third party provided training; or
- Other relevant workplace experience.

Verification of Competency should be evidence based and verified.

3. Content of a Verification of Competency

A Verification of Competency is generally made up of two sections.

1. A theory (knowledge) assessment
2. A practical (skills) assessment

Theoretical knowledge is normally assessed in a training room (office, lunch room or similar) but may also be conducted on the job, such as through documented verbal questioning.

Note: *The documented verbal assessment method may be required for those with language and literacy issues such as a person with English as a Second Language (ESL).*

The theoretical component of the Verification of Competency is generally developed from a procedure or manual and is designed to ensure that the worker has read and understood the requirements of the procedure or manual.

The practical skills assessment is usually conducted on the job by a person that has been deemed competent in the task being assessed and is designed to ensure that the worker performs the task in the manner set out in the procedure or manual.

4. Record Keeping

Documented records of all Verification of Competencies must be maintained for the entire period that a worker is employed at the mine or quarry.

Records of Verification of Competencies may be maintained in a hard copy form, stored in workers training files and or in an electronic form, documents scanned into an electronic file and details recorded in a training matrix.

Note: *See the MAQOHSC Training and Qualifications Register.*

5. Review of Verification of Competencies

Verification of Competencies should be reviewed on a periodic basis, e.g. every 2 years, depending upon the level of risk, to ensure that the competency assessment remains current and appropriate. In addition, should an incident occur that relates to the Verification of Competency then a review of the assessment along with the relevant Safe Operating Procedure shall also be required as part of the incident investigation.

If a Verification of Competency describes a task or process that is no longer required to be followed, then the Verification of Competency should immediately be withdrawn and archived.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

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Appendix A: Verification of Competency Example

Electronic version on the company server is the controlled Edition and Revision.

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Before using a printed copy, verify that it is the current Edition and Revision.

REV	ISSUED	REVISION	DOCUMENT WRITER / REVIEW	AUTHORISED BY
0	26.08.2016	New Document	J. Bloggs	A. Citizen
This document is scheduled for review: 26.08.2018				
DOCUMENT WRITER		Name: J. Bloggs Signature:		
AUTHORISED BY		Name: A. Citizen Signature:		

Insert Company Logo
Here

Title: Sales Loader

Verification of Competency

XYZ Training Form

Employee Details

I, the employee, have read and been shown or verbally informed of all the assessment criteria and understand the assessment process which needs to be completed in order to be considered competent in this safe operating procedure.

Name:	John Smith	Signature:		Date:	29.03.2017	Employee number:	5
Mine / Quarry:				Language and literacy assistance required?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Part 1: Written Oral Assessment

Question		Answer	Comments	N/A	C	NYC
1.	When are you required to conduct a daily inspection?					
2.	What are you required to check as part of a daily inspection?					
3.	What UHF channel is used to communicate with trucks?					
4.	List two items of information you must obtain from truck drivers prior to loading.					
5.	When loading from stockpiles, what is the minimum amount of toe that must be left?					
6.	Where must the loader be positioned when weighing the bucket?					

**Insert Company Logo
Here**

Title: Sales Loader

Verification of Competency

7.	What information needs to be recorded in the docket book?					
8.	How many copies of the docket does the driver receive?					
9.	Is it ok for a truck to leave the site overloaded?					
10.	After a truck leaves what is required to be done?					
11.	What is to be done with the remaining wet toe material?					
12.	Who controls the movement of sales trucks?					
13.	At the end of each shift, what is required to be done?					
14.	What must you ensure prior to leaving the loader?					
15.	Where do you account for fuel used when refueling the loader?					
16.	If you are loading different products, what must be checked?					

Practical / Oral Assessment Instructions

The Trainee may ask questions to ensure that they understand the correct procedure before they begin and if necessary may also seek clarification of the correct procedure during the assessment.

The Trainee will be asked questions either during or after the assessment to establish the reasons for their decisions and actions. The assessor may get the Trainee to stop the activity to allow questioning.

During the practical assessment if you observe a participant endangering, or about to endanger themselves, others, property or equipment, STOP THE ASSESSMENT IMMEDIATELY and explain the safety situation to the participant. This indicates the participant is Not Yet Competent and may require further training before being reassessed.

The Trainee will not approach this assessment as if it is the first time they have performed the task; they must have had adequate practice. A Record Log Book may be required to demonstrate evidence of adequate practice. Competency will be assessed based on their actions during the assessment, and answers they provide to the underpinning knowledge questions.

Learning Outcomes:

- Upon the completion of this training module you will have an accurate assessment of the trainee's competency and safety awareness.
- Practical assessment is essential so that further training can be carried out as required to ensure all XYZ Quarry personnel are trained to the highest industry standards.

Objectives:

- To monitor the performance of the trainee so as to determine whether he/she is aware of the safety and operational issues associated with the task.
- Ensure that the trainee analyses the task for potential hazards prior to beginning, and carries out the task in a controlled, sequential and safe manner, while also taking into account environmental and production considerations.

Part 2: Practical Assessment					
Task		Comments	N/A	C	NYC
1.	Did the operator correctly isolate the loader?				
2.	Did the operator check all relevant fluid levels?				
3.	Did the operator conduct a walk around inspection looking for damage or defects?				
4.	Did the operator correctly fill out the daily inspection book?				
5.	Did the operator follow the correct start up procedure?				
6.	Can the operator correctly identify the operating controls?				
7.	Can the operator correctly identify warning lights?				
8.	Did the operator ensure that the UHF radio is on channel 27?				
9.	Did the operator confirm the product to be loaded?				
10.	Did the operator confirm the weight to be loaded?				
11.	Did the operator effectively manage the movement of sales trucks?				
12.	Did the operator ensure that the sales truck was positioned in the correct location prior to loading?				
13.	Did the operator ensure a 150mm toe was left when loading from stockpiles?				

Insert Company Logo
Here

Title: Sales Loader

Verification of Competency

14.	Did the operator ensure that the loader was stationary and on level ground whilst weighing each bucket?				
15.	Did the operator correctly fill out the docket book?				
16.	Did the operator supply the correct copies to the driver?				
17.	Did the operator ensure that the trucks are not over loaded prior to leaving site?				
18.	Did the operator conduct a clean-up of any spillage?				
19.	When loading different products, did the operator inspect the bucket for contamination?				
20.	Did the operator ensure that the loader was securely parked with the bucket grounded prior to leaving the loader?				
21.	At the end of the shift, did the operator clean the cabin and windows?				
22.	Did the operator correctly refuel the loader?				
23.	Did the operator correctly record the amount of fuel used in the fuel record book?				

Insert Company Logo
Here

Title: Sales Loader

Verification of Competency

Assessment Decision				Competent <input checked="" type="checkbox"/>	Not Yet Competent
Employee:					
I agree with the assessment decision and accept the authorisation from the date signed below.					
Name:	John Smith	Signature:		Date:	01.04.2017
Assessor:					
I have checked that all sections, signatures and dates in this assessment are complete and correct.					
Name:	A. Bloke	Signature:		Date:	01.04.2017
Evidence attached					
Safe Operating Procedure <input checked="" type="checkbox"/> Licence / Ticket <input type="checkbox"/> Log Book <input type="checkbox"/> Other <input type="checkbox"/>					
Assessment type					
Verification of Competency <input checked="" type="checkbox"/> Task Observation <input type="checkbox"/> Repeat Assessment <input type="checkbox"/>					
Outcome has been recorded in					
Training Matrix <input checked="" type="checkbox"/> Employee's Training File <input checked="" type="checkbox"/>					

Appendix B: Verification of Competency Template

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REV	ISSUED	REVISION	DOCUMENT WRITER / REVIEW	AUTHORISED BY
0		New Document		
This document is scheduled for review: 26.08.2018				
DOCUMENT WRITER		Name: _____ Signature: _____		
AUTHORISED BY		Name: _____ Signature: _____		

Insert Company Logo
Here

Title: _____

Verification of Competency

XYZ Training Form

Employee Details

I, the employee, have read and been shown or verbally informed of all the assessment criteria and understand the assessment process which needs to be completed in order to be considered competent in this safe operating procedure.

Name:		Signature:		Date:		Employee number:	
Mine / Quarry:				Language and literacy assistance required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

Part 1: Written Oral Assessment

Question		Answer	Comments	N/A	C	NYC
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Practical / Oral Assessment Instructions

The Trainee may ask questions to ensure that they understand the correct procedure before they begin and if necessary may also seek clarification of the correct procedure during the assessment.

The Trainee will be asked questions either during or after the assessment to establish the reasons for their decisions and actions. The assessor may get the Trainee to stop the activity to allow questioning.

During the practical assessment if you observe a participant endangering, or about to endanger themselves, others, property or equipment, STOP THE ASSESSMENT IMMEDIATELY and explain the safety situation to the participant. This indicates the participant is Not Yet Competent and may require further training before being reassessed.

The Trainee will not approach this assessment as if it is the first time they have performed the task; they must have had adequate practice. A Record Log Book may be required to demonstrate evidence of adequate practice. Competency will be assessed based on their actions during the assessment, and answers they provide to the underpinning knowledge questions.

Learning Outcomes:

- Upon the completion of this training module you will have an accurate assessment of the trainee's competency and safety awareness.
- Practical assessment is essential so that further training can be carried out as required to ensure all (*insert company name*) personnel are trained to the highest industry standards.

Objectives:

- To monitor the performance of the trainee so as to determine whether he/she is aware of the safety and operational issues associated with the task.
- Ensure that the trainee analyses the task for potential hazards prior to beginning, and carries out the task in a controlled, sequential and safe manner, while also taking into account environmental and production considerations.

Insert Company Logo
Here

Title: _____
Verification of Competency

Part 2: Practical Assessment					
Task		Comments	N/A	C	NYC
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

Insert Company Logo
Here

Title: _____

Verification of Competency

Assessment Decision		Competent	Not Yet Competent
<p>Employee:</p> <p>I agree with the assessment decision and accept the authorisation from the date signed below.</p>			
Name:		Signature:	Date:
<p>Assessor:</p> <p>I have checked that all sections, signatures and dates in this assessment are complete and correct.</p>			
Name:		Signature:	Date:
Evidence attached			
<p>Safe Operating Procedure <input type="checkbox"/> Licence / Ticket <input type="checkbox"/> Log Book <input type="checkbox"/> Other <input type="checkbox"/></p>			
Assessment type			
<p>Verification of Competency <input type="checkbox"/> Task Observation <input type="checkbox"/> Repeat Assessment <input type="checkbox"/></p>			
Outcome has been recorded in			
<p>Training Matrix <input type="checkbox"/> Employees Training File <input type="checkbox"/></p>			

Mining and Quarrying
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REV	ISSUED	REVISION	DOCUMENT WRITER / REVIEW	AUTHORISED BY
0		New Document		
This document is scheduled for review: XX.XX.20XX8				
DOCUMENT WRITER		Name: Signature:		
AUTHORISED BY		Name: Signature:		

Insert Company Logo
Here

Title: _____

Verification of Competency

XYZ Training Form

Employee Details

I, the employee, have read and been shown or verbally informed of all the assessment criteria and understand the assessment process which needs to be completed in order to be considered competent in this safe operating procedure.

Name:		Signature:		Date:		Employee number:	
Mine / Quarry:				Language and literacy assistance required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

Part 1: Written Oral Assessment

Question		Answer	Comments	N/A	C	NYC
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						

Practical / Oral Assessment Instructions

The Trainee may ask questions to ensure that they understand the correct procedure before they begin and if necessary may also seek clarification of the correct procedure during the assessment.

The Trainee will be asked questions either during or after the assessment to establish the reasons for their decisions and actions. The assessor may get the Trainee to stop the activity to allow questioning.

During the practical assessment if you observe a participant endangering, or about to endanger themselves, others, property or equipment, STOP THE ASSESSMENT IMMEDIATELY and explain the safety situation to the participant. This indicates the participant is Not Yet Competent and may require further training before being reassessed.

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Objectives:

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- Ensure that the trainee analyses the task for potential hazards prior to beginning, and carries out the task in a controlled, sequential and safe manner, while also taking into account environmental and production considerations.

Insert Company Logo
Here

Title: _____

Verification of Competency

Part 2: Practical Assessment					
Task		Comments	N/A	C	NYC
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

Insert Company Logo
Here

Title: _____

Verification of Competency

Assessment Decision		Competent <input type="checkbox"/>	Not Yet Competent <input type="checkbox"/>		
Employee: I agree with the assessment decision and accept the authorisation from the date signed below.					
Name:		Signature:		Date:	
Assessor: I have checked that all sections, signatures and dates in this assessment are complete and correct.					
Name:		Signature:		Date:	
Evidence attached					
Safe Operating Procedure <input type="checkbox"/> Licence / Ticket <input type="checkbox"/> Log Book <input type="checkbox"/> Other <input type="checkbox"/>					
Assessment type					
Verification of Competency <input type="checkbox"/> Task Observation <input type="checkbox"/> Repeat Assessment <input type="checkbox"/>					
Outcome has been recorded in					
Training Matrix <input type="checkbox"/> Employees Training File <input type="checkbox"/>					

Training Needs Analysis Template

What is a Training Needs Analysis (TNA)?

A Training Needs Analysis is the process of identifying the gap between employee training and needs of training. Training needs analysis is the first stage in the training process.

There are many aspects to training needs analysis, but the essential activity involves:

- Determining what is required to complete the work activity;
- Determining the existing skill levels of the staff completing the work; and
- Determining the training gap (if any).

This document is designed to assist in the identification of training needs and competencies for specific job roles within the workplace.

The pre-populated job roles, training requirements and competencies specified in this template are a guide only and modification should be made in accordance with identified training and competencies and job roles that are specific to your operation.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

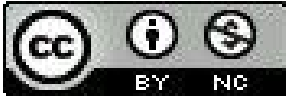
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February 2020

	Qualification				
Job Role	Mine Engineer degree	Diploma Work Health and Safety	Cert IV Front Line Management	Other	Car
Identify retraining timeframes	N/A	N/A	N/A		10 Years
Mine/Quarry Manager	Y				Y
Supervisor			Y		Y
WHS Coordinator		Y	Y		Y
Adminstrator					Y
Weigh Bridge Operator					Y
Workshop Manager					
Fitter					
Dump Truck Operator					
Excavator Operator					
Quarry Worker					
Dozer Operator					
Truck Driver					
Plant Operator					
Other					
Other					

[illegible]

Competencies

[illegible]

[illegible]

[illegible]

Training and Qualifications Register

PURPOSE

The MAQOHSC Training and Qualifications Register is designed as a practical means for an organisation to keep accurate records of scheduled and completed training for all workers, inclusive of contractors.

Legislation requires you to not only provide training and instruction to your workers, but to ensure records of that training and instruction are maintained.

Records of all training and qualifications should be entered into the Training and Qualifications Register, this includes:

- 1) Workplace Inductions;
- 2) Work Health and Safety Policies and Procedures;
- 3) Risk Assessments and Management Plans;
- 4) Safe Operating Procedures;
- 5) Emergency Response Training;
- 6) Licences and Competencies; and
- 7) Formal Qualifications.

Existing workers should be entered into the Training and Qualifications Register along with their up to date training records and you should enter new workers as they are employed. As a worker completes any training the results shall be entered along with the recommended date for refresher training.

A responsible person should be assigned to maintain the Training and Qualifications Register.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

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February 2020

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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Workplace Induction Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

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Workplace Induction Guide

AIM

The aim of the guidance material is to assist mines and quarries to:

1. Understand the legislative requirement to induct and train new workers;
2. Identify who should receive a safety induction program;
3. Identify what should be included in a safety induction program; and
4. Develop a safety induction program.

Forward

A worker's experiences in the first few days or weeks will shape their attitudes towards their work, fellow workers and the company.

Workplace Inductions provide the person conducting a business or undertaking (PCBU's) with an opportunity to influence a new worker's attitude towards the company and their work through the provision of information, training and supervision.

It will assist workers to perform their job safely, particularly in the first twelve months when they are most at risk of injury.

1. Introduction

Induction is much more than having a one-hour chat, completing a few administrative forms and being introduced to fellow workers. The induction and on the job training process should occur over a period of weeks or months. The time spent inducting and training a worker on safe work procedures and practices will result in a safe and productive workforce with fewer incidents and injuries.

Induction training aims to provide persons with:

- ☐ A basic knowledge of Work Health and Safety (WHS) legislative requirements
- ☐ Site-specific hazards
- ☐ Principles of risk management
- ☐ Systems for prevention of injury and illness whilst working in the mining industry

There may be several levels of induction, such as site inductions, area specific inductions, contractor inductions and visitor inductions.

2. Legislative requirements

Section 19 (Primary duty of care) of the South Australian WHS Act 2012, states:

- 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.
- 3) Without limiting subsections (1) and (2), a person conducting a business or undertaking must ensure, so far as is reasonably practicable—
 - e) to ensure that the person conducting the business or undertaking has, and implements, processes for complying with any duty or obligation of the person conducting the business or undertaking under the Act; and
 - ensuring the provision of training and instruction to workers about work health and safety.

The requirements of this primary duty of care are expanded upon further in the South Australian WHS Regulations 2012.

Regulation 39 (Provision of information, training and instruction) of the South Australian WHS Regulations 2012 states:

- 1) This regulation applies for the purposes of section 19 of the Act to a person conducting a business or undertaking.

- 2) The person must ensure that information, training and instruction provided to a worker is suitable and adequate having regard to—
 - a) the nature of the work carried out by the worker; and
 - b) the nature of the risks associated with the work at the time the information, training or instruction is provided; and
 - c) the control measures implemented.
- 3) The person must ensure, so far as is reasonably practicable, that the information, training and instruction provided to a worker is provided in a way that is readily understandable by any person to whom it is provided.

Further to regulation 39, there are additional information and training requirements for “mines” detailed in Chapter 10 (Mines) of the WHS Regulations 2012.

Regulation 675A (Duty to inform workers about safety management system) of the South Australian WHS Regulations states:

- 1) The mine operator of a mine must ensure that, before a worker commences work at the mine—
 - a) the worker is given a summary of the safety management system for the mine that is relevant to the worker's work at the mine; and
 - b) the worker is informed of the right to see the documented safety management system for the mine.

Regulation 675B (Duty to provide information, training and instruction) of the South Australian WHS Regulations states:

- 1) This regulation applies in addition to regulation 39.
- 2) The mine operator of a mine must ensure that each worker at the mine is provided with suitable and adequate information, training and instruction in relation to the following:
 - a) all hazards associated with the work being carried out by the worker;
Note: *This is inclusive of principal mining hazards.*
 - b) the implementation of risk control measures relating to the work being carried out by the worker, including controls in relation to fatigue, the consumption of alcohol and the use of drugs;
Note: *This is inclusive of principal mining hazard management plans.*
 - c) the content and implementation of the safety management system for the mine;
 - d) the emergency plan for the mine;
 - e) the safety role for workers implemented under regulation 675Q.

Regulation 675C (Information for visitors) of the South Australian WHS Regulations states:

- 1) The mine operator of a mine must ensure that a visitor who enters the mine with the authority of the mining operator is, as soon as practicable—

- a) informed about risks associated with mining operations to which the visitor may be exposed at the mine; and
- b) instructed in health and safety precautions the visitor should take at the mine; and
- c) instructed in the actions the visitor should take if the emergency plan for the mine is implemented while the visitor is at the mine.

Regulation 675D (Review of information, training and instruction) of the South Australian WHS Regulations states:

- 1) The mine operator of a mine must ensure that information, training and instruction provided to workers under regulations 675A and 675B or to visitors under regulation 675C are reviewed and as necessary revised to ensure that they remain relevant and effective.

Regulation 675E (Record of training) of the South Australian WHS Regulations states:

- 1) The mine operator of a mine must—
 - a) make a record of any training provided to a worker under regulation 675B; and
 - b) keep the record while the worker remains engaged at the mine.

3. Site inductions

Site inductions must be developed to ensure appropriate WHS information and obligations are provided to and understood by all workers prior to commencing work.

Induction requirements should be determined using information sourced from:

- ☐ Legislative requirements
- ☐ Site-specific competency and training needs analysis (TNA)
- ☐ Risk management processes
- ☐ Relevant training package
- ☐ Changes to site (e.g. change in traffic management)
- ☐ The WHS management system
- ☐ Standards applicable to the site

All site inductions should contain an assessment to ensure required knowledge has been retained by the worker.

It is important to review the site's induction regularly to determine if information is still relevant. Overloading the site induction with other courses that should stand alone may prevent workers from retaining important safety information.

Site inductions should comprise a formal training program that provides workers with an understanding of, but not limited to:

- The obligations of PCBU's and worker's including duty of care under the WHS Act 2012 and the WHS Regulations 2012;
- ☐ Organisational Structure

- ☐ The Safety Management System;
- ☐ Company policies and their location;
- ☐ Types of work and processes conducted on-site;
- ☐ The type of work that will be carried out by the worker/s;
- ☐ The types of plant and equipment used on-site;
- ☐ Common hazards and risks on the site and their control measures;
- ☐ Principal mining hazards and principal mining hazard management plans;
- ☐ The safety role for workers in relation to principal mining hazards;
- ☐ Basic risk management principles and tools used on site;
- ☐ Emergency contact numbers and emergency plans;
- ☐ The site layout including emergency assembly points;
- ☐ Reporting processes including hazards, incidents, accidents and injuries;
- ☐ The standard of behavior expected of workers on mine sites;
- ☐ WHS communication and reporting procedures; and
- ☐ Roles and functions of Health and Safety Representatives and the Health and Safety Committee;

When deciding how to present the induction, also consider the literacy levels, cognitive load and interest in the subject matter.

Providing pages of text that is too legalistic or technical, and then asking inductees to read it and sign off as having understood the content is unlikely to achieve the aims of the induction, which is to prepare people for the workplace.

Inductions should be completed by relevant persons who work at a mine, including site managers and supervisors, employees, self-employed persons, labour hire personnel and contractors.

4. Area-specific inductions

Area specific inductions are conducted to inform the worker/s of specific area hazards and the controls that should be in place prior to commencing tasks. Items that should be included in an area induction are:

- Layout of work area and/or plant;
- Emergency personnel;
- Emergency assembly points and evacuation procedures;
- Personal protective equipment and facilities;
- First aid Personnel and facilities;
- Firefighting equipment for the area;

- Ablution block and crib facilities; and
- Area specific hazards and controls.

5. Visitor inductions

Visitor inductions are conducted to inform visitors of what is expected of them while on site. It may include limitations and the rules for tasks being performed, and requirements for a site escort.

Inductions should also describe the emergency procedure in the event of emergency and where evacuation points are located.

Note: *Additional information and templates for visitor and contractor inductions is available in the MAQOHSC Contractor and Visitor Management Guide.*

ADDITIONAL RESOURCES

MAQOHSC has a suite of tools and templates to assist in the development and implementation of your site specific induction requirements.

- ☐ Induction Policy Template;
- ☐ Induction Procedure Template;
- ☐ Induction Manual Template;
- ☐ Induction and Orientation Checklist; and
- ☐ Induction Questionnaire Template.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or maqohsc@sa.gov.au.

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Induction Policy Template

Purpose and Scope

(insert company name) is committed to ensuring that all workers are appropriately inducted to enable them to perform their duties in a manner that meets expectations and protects them from injury and risks to health and wellbeing whilst at work.

(insert company name) recognises that workers gain greater job satisfaction and can operate more effectively when they can see how their position fits into an organisational context and contributes to Company goals. As a Person Conducting a Business or Undertaking (PCBU), *(insert company name)* has an obligation to provide information, training and instruction to new workers.

New workers and workers who are transferred to a new role will be provided with the information, training and instruction, required to succeed and develop in their new role. *(insert company name)* therefore provides all new workers with a thorough and systematic introduction to the Company and their colleagues, along with an overview of any relevant Health and Safety requirements, Code of Conduct, Codes of Practice and any other operating requirements.

This Policy applies to all new workers, including casual employees, visitors and contractors.

Responsibilities

(insert company name) undertakes to ensure that information, training and instruction is provided in a form and language which the individual worker can understand and is suitable for his / her background and level of knowledge and skill.

Training will be designed to ensure that workers can gain the appropriate competencies in a timely manner to fulfil their role and minimise their exposure to risks.

It is the responsibility of each Manager to ensure that all new workers are provided with the necessary information, training and instruction so that they can perform in their respective positions safely and effectively. *(insert company name)* Managers shall ensure the Company Induction Procedures are followed.

At the conclusion of the induction process, the new worker should:

- Have a genuine perception that they are a welcome addition to *(insert company name)*;
- Have a sound understanding of their role within *(insert company name)*;
- Understand the requirements of their position;
- Have a clear understanding of all conditions of their employment; and
- Have an understanding of *(insert company name)* Policies and Procedures and Code of Conduct.

Additionally, new workers have a responsibility to ensure that they:

- Read all documentation issued – in particular the *(insert company name)* Policies and Procedures and Code of Conduct;
- Sign all relevant documentation;
- Ask questions and seek clarification if any aspect of the induction process is unclear; and
- Maintain the required performance standards of the position.

Management seeks cooperation from all workers in achieving our Health and Safety objectives and creating a safe work environment.

.....
(insert role of most senior person)

Dated: / /

Review Date: / /

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Induction Procedure Template

Purpose

To ensure new workers undertake *(insert company name)* General Induction training and are provided with information and instruction on the workplace and undertake training and assessment necessary for them to competently and safely carry out their duties.

Scope

Applies to all visitors, contractors and employees attending *(insert company name) (insert mine/quarry name)* site.

Definitions

Competence: A cluster of related abilities, commitments, knowledge, and skills that enable a person to act effectively in a job or situation.

Competent Person: A person who has acquired through training, qualification or experience the knowledge and skills to carry out a task.

Delegated Person: A competent person appointed and given appropriate responsibility and authority by the *(insert company name) (insert position, e.g. Managing Director)* to carry out a task(s) on their behalf.

New Employee: A person who is newly employed or re-employed by *(insert company name)*.

New Worker: A Worker who is newly employed or new to a workplace and has not undertaken a Workplace Induction or relevant Safe Operating Procedure (SOP) training and assessment.

General Induction: Providing new Employees / Workers with information on appropriate *(insert company name)* workplace specific policies and procedures, employment conditions, organisational structure and roles and responsibilities.

Safe Operating Procedure: A stepped out process to guide Workers in safely carrying out a task.

Task: A piece of work carried out by a Worker.

Worker: For the purpose of this procedure a Worker means a person who carries out work for *(insert company name)* in any of the following capacities; an employee; an employee of a labour hire company; a contractor employee; an apprentice or trainee; a work experience student or a volunteer.

Workplace: Any place where work is carried out for *(insert company name)* and includes any place where a Worker goes, or is likely to be while at work including a vehicle, vessel, aircraft or other mobile structure; and any waters and any installation on land, on the bed of any waters or floating on any waters.

Induction Procedure Template

Workplace Induction:

The process of introducing workers to their workplace, amenities and facilities including co-workers, management, administration personnel, first aiders, health and safety representatives, emergency assembly points, firefighting equipment, crib / lunch rooms, etc.

Responsibilities

Guidance note (delete this later): Below is an example positions and responsibilities. The positions will need to be modified to suit your operation and organisational structure. This could include Management, Site Administrators, Work Health and Safety personnel, Site Trainers, Supervisors and Health and Safety Representatives.

Managing Director:

Ensure that the Person Conducting a Business or Undertaking (PCBU) has available for use, and uses, appropriate resources and processes to enable the provision of training and instruction to Workers.

Managers / Supervisors:

Ensure inductions are booked;

Ensure new Employees / Workers are sent a booking confirmation e-mail / letter that includes information on the induction date, time and location, clothing and personal protective equipment (PPE) requirements and to bring own lunch;

Be inducted in the area that they are giving the induction for;

Deliver or delegate delivery of general induction or orientation;

Deliver or delegate delivery of area specific induction or orientation;

Conduct or delegate assessment of general and area specific induction or orientation;

Ensure completed induction paperwork is returned to Work Health and Safety / Training Department or Administration upon completion of induction;

Introduce new person to team; and

Provide person with appropriate risk management tools.

Work Health and Safety /**Training / Administration:**

Ensure induction training material is available and current;

Liaise with Managers / Supervisors to manage the induction booking process;

Ensure induction paperwork and assessments are filed in appropriate personnel files;

Induction Procedure Template

Ensure copies of all licences and tickets of new Employees / Workers are obtained and filed in appropriate personnel files; and

Maintain the *(insert company name)* training matrix.

New Employees / Workers: Present for the induction in a “fit for work” state;

Participate in discussions; and

Ask questions where understanding is not clear.

Inductions

Guidance note (delete this later): Below is an example of possible inductions that may be relevant to your operation. This section will need to modified to suit.

(insert company name) has a range of inductions to ensure induction processes are appropriate to the time on site and meet the task requirements. The following table outlines the Induction Program.

Induction Type	Area	Target Group	Valid for	Conducted By:
Visitor Induction	Surface and Underground	Personnel who will be on site in a visitor capacity and will not be performing any manual work. Suitable for those attending meetings, inspections, tours, office work.	3 months	Delegated person or <i>(insert position title)</i> with a current induction.
Contractor Induction	Surface and Underground	Personnel required to conduct work but will be on site for less than 7 days or a set project time frame. A worker / contractor working under a Supervised Worker induction may only conduct the work for which they are competent and experienced.	Annually but if off site for more than 3 months continuously will require a refresher induction.	Delegated person or <i>(insert position title)</i> with a current induction.
General Induction	All areas includes admin, production and maintenance areas	Personnel who are on site for 7 days or more, all permanent employees, and all permanent contractor employees.	2 years but if off site for more than 6 months continuously will require a refresher induction.	Delegated person or <i>(insert position title)</i> with a current induction.
Basic Isolations	Surface and Underground	All persons required to conduct a basic isolation on mobile or fixed plant and equipment or lock onto a lockbox. <i>This training does not allow persons to conduct complex isolations.</i>	2 years but if off site for more than 6 months continuously will require a refresher induction.	Delegated person or <i>(insert position title)</i> with a current induction.

Induction Procedure Template

Processing Plant / Mill Orientation	Surface	Personnel performing work in the mill, all permanent employees and all permanent contractors.	If off site for more than 6 months continuously will require a refresher induction.	Delegated mill personnel with a current induction.
Maintenance Orientation	Surface	Personnel performing work or entering the workshop (other than the office), all permanent employees and all permanent contractor employees.	If off site for more than 6 months continuously will require a refresher induction.	Delegated maintenance personnel with a current induction.
Underground Induction	Underground	Personnel who work underground and all permanent employees.	2 years but if off site for more than 6 months continuously will require a refresher induction.	Delegated mining personnel with a current induction.
Refresher Induction	All inductions	Personnel who completed a general induction more than 2 years previously.	Every 2 years	Delegated person or (insert position title) with a current induction.

Responsibilities

Guidance note (delete this later): Below is an example that will need to be modified to suit to suit your operation.

General

All personnel on site at any time, are required to have had one of the inductions as described above, the type of which will depend on the reason for being on site. It is the responsibility of the **(insert position title e.g. Manager / Supervisor)** to ensure all personnel within his / her area of responsibility have the appropriate inductions.

Visitor and Contractor Inductions

Visitor and Contractor Inductions can be conducted at any time by **(insert position title)** who have a current induction for the area the visitor will attending.

Each **(insert position title)** will arrange the Induction and associated paperwork from the **(insert location of paperwork e.g. Administration office, training folder, etc.)**.

All assessments and agreements are to be retained in **(insert location, e.g. Administration office)**.

Visitors will be required to read the site requirements for entry and formally agree to comply with these requirements by signing acceptance.

Visitors will be required to declare any medications or medical conditions which may impact on their safety or the safety of others whilst they are on **(insert company name)** site.

Visitors and Contractors are required to sign in and out in the visitor sign in register, located in the **(insert location, e.g. Administration office)**.

Visitors are not permitted to conduct work / tasks and must be supervised / escorted at all times.

Induction Procedure Template

General, Processing Plant / Mill and Maintenance Orientation and Underground Inductions

The full **(insert company name)** Induction Program which includes General, Processing Plant and Maintenance Orientation, Underground and Basic Isolation and Lockout is typically conducted every Monday commencing at 0800 in the Administration meeting room. Inductions may be carried out at other time based on production requirements.

Personnel are required to be booked into the Induction Program. Due to limitation of the facility inductions are limited to 10 people.

A booking confirmation e-mail / letter will be sent when a person has been booked for induction. The e-mail will include the name of the inductees, the time and place of the induction and minimum site personal protective equipment requirements.

Once the General Induction has commenced no late arrivals will be accepted after 8:10am. The **(insert position title)** will be responsible for arranging an alternate time for Induction.

Assessments are completed for each induction module and an area familiarisation is completed. Persons conducting the area familiarisation are responsible for ensuring that inductees are wearing appropriate visitor personal protective equipment. That includes long pants and sleeves, high visibility clothes or vest, safety boots and safety glasses.

Underground Induction presentations, procedures, assessments and familiarisation can be found in **(insert location)**.

Basic Isolation and lockout training will be completed for those who are required to conduct isolation and lockouts.

All area induction assessments are to be returned to **(insert location)**. Trained Staff will update the training matrix, the completed orientations and the assessments will be filed in individual training files.

Assessment of Induction Delivery

Personnel delivering General and Underground Inductions must be inducted in the area induction they are presenting and be assessed as competent to deliver the induction by **(insert position title e.g. Managing Director)** or an authorised delegate.

Revision

This Procedure will be revised as required and at no later than two years from the date of the last major revision.

Authorisation

Revision	Review / Edit Date	Reason for Review	By whom reviewed
1	xx.xx.xxxx	New document	Joe Bloggs

Signed: _____
(insert position title e.g. Managing Director)

Date: _____

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation's structure.

1. Remove all **“(insert company name)”** sections and replace with registered business name
2. Remove all **“(insert name of quarry/mine)”** sections and replace with quarry/mine pit name.
3. Remove all **“(insert senior management position e.g. site manager)”** and replace with relevant position
4. Remove all **“(insert location)”** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all **“Note”** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Induction Manual Template

*(Insert Company Name and Company Logo
or Site Photo)*

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1. Welcome

Congratulations on your appointment and welcome to the team at *(insert company name)*. We are excited that you have joined us and look forward to a long, happy and successful partnership together.

We want to ensure that your interactions with other *(insert company name)* workers and our stakeholders will reflect the value that *(insert company name)* places on people, teamwork, two way communication and our commitment to customer service.

The purpose of this Manual is to introduce you to *(insert company name)*, and information about your terms and conditions of employment, our expectations around your behaviour, our policies and procedures and an overview of Work Health and Safety requirements.

This manual should be read in conjunction with your Contract of Employment.

This Manual is by no means an exhaustive guide to your employment with us. It has been developed to act as a resource and reference for you.

The policies within this Manual are easily listed and easily accessed via the contents page.

This Manual will be updated as required and as our business evolves and grows. You will be notified of any changes as they occur. If you have any questions about the content please do not hesitate to contact *(insert contact name)* on *(insert contact number)*.

2. Our Company

Guidance note (delete this and example later):

In the first paragraph you will need to detail the company's trading name, if it is a partnership / joint venture, etc.

Paragraph two will detail your quarry / mines location, product/s mined, details of any processing of mined ore / product and details of any other leases held.

An example is shown below:

MQ is a mining company focusing on dolomite / quartzite, based in Fleurieu Peninsula. It is an Australian owned company formed in January 1988.

The Company's prime asset is the ABC Project, located 80km south of Adelaide in the Fleurieu Peninsula region of South Australia. It involves the open cut mining of dolomite / quartzite located in two separate Mineral Leases.

We process extracted rock to produce aggregates, rubbles and sands which supplies and services the Fleurieu Peninsula, the southern part of Adelaide and the lower Riverland area.

MQ also holds an exploration tenement portfolio covering over 11,000 km² within the Fleurieu Peninsula region in South Australia.

(insert an overview of your company below).

3. What We Do

Guidance note (delete this and example later): In this section you should explain what your business does and an overview of products and services offered. Below is an example to get you started.

At *(insert company name)* we provide the following products and services to our stakeholders:

- Concrete and Asphalt Aggregates;
- Gabions and Ballast;
- Cement treated sand and rubbles;
- Quarry sands; and
- Transportation (supply and deliver) of products.
- Additional spaces...

4. Stakeholders

Guidance note (delete this and example later): In this section you should outline the clients and industries that you service. Below is an example to get you started.

At *(insert company name)* we service many businesses from the building and construction industry, we are proud to list the following clients:

(insert Logos or names of your biggest clients here)

5. Our Mission, Vision and Values

Guidance note (delete this later): It is important to communicate your purpose or roadmap for success. This includes where you are headed and the expected values and behaviours you want your people to demonstrate on the way.

5.1. Mission Statement:

Guidance note (delete this and example later): Your roadmap should start with your Mission, it declares your purpose as a company and serves as the standard against which you weigh your actions and decisions. Below is an example of a Mission, Vision and Values Statement.

(insert company name) mission is to supply and deliver superior products to our stakeholders.

5.2. Vision Statement:

Our aim is to be:

- Known for high quality products; and
- Known for excellent service.

5.3. Values:

- Respected
- Trusted
- Flexible
- Integrity

6. Your Employment

Guidance note (delete this later): In this section you should tailor the information based on the general customs and practices of your business. Below is an example to get you started.

Your employment with *(insert company name)* is essentially governed by your contract of employment and *(insert company name)* policies and procedures in conjunction with this Manual. The following section provides general information regarding your pay, conditions and our expectations of you.

6.1. National Employment Standards

(insert company name) shall provide you with a Fair Work Information Statement with the Human Resources and Payroll documentation after this induction, which details the National Employment Standards and key details related to employment conditions.

6.2. Confidential Medical Information

All direct casual, part time or full time employees are required to complete a medical history form prior to commencing work with *(insert company name)*.

This confidential medical information gathered ensures *(insert company name)* is aware of any conditions you may have so we can manage your employment and ensure your health and safety is not placed at risk while at work.

You will also be required to have a pre-employment medical assessment prior to commencing full time employment. This is arranged and paid for by *(insert company name)* and is mandatory for you to attend the appointment or it must be cancelled at least twenty four (24) hours prior. Where you have not attended this appointment and no cancellation has occurred, the cost of the booking will be recovered from you.

Additionally, air monitoring and personal health monitoring programs shall be undertaken from time to time. Your cooperation with such initiatives is required to meet legislative requirements, improve working conditions and to assess for early signs of adverse health effects.

6.3. Human Resources and Payroll

You will be given the following forms on the first day of starting your new role with *(insert company name)*. If you have not received them please ask the person who is undertaking the induction process:

- Personal and Emergency Contact Details form;
- Bank Account Details form;
- Taxation Declaration form;
- Medical history form; and
- Super Choice form.

These forms must be fully completed together with other relevant employment documentation and returned to your *(insert position title)*. You can request a copy of the documentation if you wish to do so. The documentation will be kept securely in your employment file and available on request.

6.4. Changing of Bank Account or Personal Details

Please advise your *(insert position title)* in writing should you wish to change any pay details like changing or closing your bank account. Please ensure you notify us prior to the date you wish for the change to be active by. You are also asked to advise your *(insert position title)* in writing of any changes via the *(insert name of form)* form to the following:

- Your Name or Address;
- Medical Conditions;
- Emergency Contacts; and
- Super Fund.

6.5. Pay Days

You may be required to use time sheets or swipe cards. These must be used or completed daily and signed off by your *(insert position title)* and forwarded to Payroll each week. Your pay cycle is *(insert weekly / fortnightly / monthly)*.

Our pay cycle runs from *(insert day)* to *(insert day)* over a *(insert weekly / fortnightly / monthly)* period and pays are processed on *(insert day) (insert weekly / fortnightly / monthly)*.

Pays will be automatically deposited electronically into the bank account details provided by you to *(insert company name)*. Taxation payments are automatically deducted from your pay.

6.6. Incorrectly Paid

Upon receiving your pay slip and believing there to be an issue with the summary, you should immediately raise the matter with your *(insert position title)*. Do not speak with other workers or staff about the issue. The matter will be reviewed and any adjustments will be processed as quickly as possible.

6.7. Superannuation

Superannuation is paid in accordance with the South Australian Government's Superannuation Guarantee Legislation. A superannuation payment is calculated on your ordinary time earnings and is paid into your nominated superannuation fund of your choice. You may also choose to pay a portion of your wages into the superannuation fund.

6.8. Hours of Work

(insert company name) adopts a common sense approach to managing work hours. Office / Business hours are generally between *(insert time to time) (insert weekday to weekday)*.

Your hours of work will depend on business needs and the requirements of the work you are assigned.

Guidance note: The above will need to be modified to suit your particular operation, for example if your operation is a 24 / 7 operation.

Your *(insert position title)* will work with you to establish your standard hours of work and break times.

6.9. Wage and Performance Review

Wages are reviewed in line with the applicable award and / or annually. Reviews are conducted with your *(insert position title)* and are strictly confidential.

Wages should only be discussed with your *(insert position title)*, not with other co-workers or staff.

Performance reviews focus on:

- Individual Performance;
- Skills and knowledge; and
- Level of decision-making.

Your performance is reviewed either *(insert 6 or 12 monthly)*. The reviews are designed to provide feedback on your strengths, weaknesses and any development needs identified by *(insert company name)* that will assist you to further your career.

6.10. Reimbursement of Expenses

(insert company name) will reimburse employees for pre-approved expenses properly incurred by employees in the proper performance of their duties.

Reimbursement will be subject to employees providing *(insert company name)* with receipts or other evidence of payment and of the purpose of each expense, in a form reasonably required by *(insert company name)* provided that all claims are made on the appropriate form, signed by the appropriate *(insert position title)* and supported with the necessary substantiating documentation.

Reasonable travelling expenses, where incurred in the performance of an employee's duties, will be reimbursed. The payment of expenses is at all times subject to the prior authorisation of, and at the discretion of *(insert company name)*.

Generally air travel will be by economy class, with a carrier chosen by *(insert company name)*.

7. Leave Entitlements

7.1. Annual Leave

Full time and part time workers are entitled to four **(4)** weeks annual leave, based on their ordinary hours of work. This is calculated on a pro-rata basis. Your accrued annual leave will be shown on your payslip.

Any accrued leave shall be paid out at the end of your employment in line with your contract of employment and award terms.

You do not have to complete twelve **(12)** months service before you can take annual leave.

You can take it as it accrues in consultation with your *(insert position title)*.

Casual workers are not entitled to annual leave.

7.2. Annual Leave Request

You are required to utilise your annual leave entitlements in consultation with your *(insert position title)*. *(insert company name)* generally ceases trading over the Christmas / New Year period.

Your *(insert position title)* will advise you of the time frames for annual leave over the Christmas break.

All employees should avoid accruing more than twenty **(20)** days annual leave without prior discussion with your *(insert position title)*, e.g. planning a trip away. Annual leave is designed for workers to have a break from work, to relax and spend quality time with family and friends, but most importantly recharge!

7.3. Annual Leave Documentation

A *(insert name of form)* form must be completed and submitted to your *(insert position title)* and approvals obtained at least two **(2)** weeks prior to the annual leave request date.

Annual leave shall not be taken without the appropriate documentation completed and prior approval from your *(insert position title)*.

7.4. Annual Leave Payments

You can be paid *(insert weekly or in advance)* while on annual leave. You must clearly document this on the *(insert name of form)* form and it must be approved by your *(insert position title)*.

There is no payment in lieu (cashing out) of annual leave. You will only be paid out your annual leave if you resign or the company terminates your employment.

7.5. Long Service Leave

At completion of ten **(10)** years continuous service with *(insert company name)*, you are entitled to thirteen **(13)** weeks paid long service leave. In South Australia, long service leave is due after ten **(10)** years of continuous employment; however long service starts accruing and is accessible after seven **(7)** years.

7.6. Absence from work

Any absence or late arrival due to illness, injury or any other reason, and the expected duration of leave must be personally reported by telephone call to your *(insert position title)* as soon as practical (prior to your normal starting time wherever possible). Email or text message in these circumstances is not acceptable.

If you are unable to do this personally, you are requested to ask someone to telephone on your behalf.

Subsequent to this, you must keep your *(insert position title)* informed of your progress.

Wherever possible you should make dental, medical, business or other appointments outside your normal working hours.

It is essential that you are ready to commence work at your normal commencement time as other employees and the business depend upon you and your contribution.

7.7. Sick Leave

Sick and carers leave comes under the same leave entitlement. It's also known as personal / carers leave.

Full time and part time employees are entitled to sick leave and carers or compassionate leave.

- Full time employees are entitled to ten **(10)** sick days per year.
- Part time employees are entitled to pro rata of ten **(10)** days each year depending on their hours of work.

Example:

Tom is a full time employee who works 38 hours per week. Aaron is a part time employee who works 19 hours per week. Tom gets 10 days paid sick and carers leave per year. Aaron gets 5 days paid sick and carers leave per year as he works half the hours Tom works.

Sick leave shall be used when a worker is unfit for work due to illness or injury.

Where a worker has no accrued sick leave left, it is left to the discretion of their *(insert position title)* as to whether it is leave without pay or the worker can utilise other leave entitlements.

Sick leave is not to be taken without advising your *(insert position title)* and the appropriate documentation forwarded to payroll.

Casual workers are not entitled to be paid sick leave.

7.8. Doctors Certificates

A Doctors Medical Certificate is required stating that you are unfit for work when:

- You have two **(2)** days in a row absent from work due to sickness, and
- You are absent on either a Friday or Monday *(first or last day of shift cycle)*.

Your *(insert position title)* may also require a medical certificate that are not related to the above described.

7.9. Sick Leave Documentation

It is your responsibility to complete a *(insert name of form)* on the day you return to work from sick leave. This form must be given to your *(insert position title)*, once approved, it will be forwarded to payroll for processing.

7.10. Carers Leave

Carers leave should be taken when you are required to take time off work to care for an immediate family member or a member of your household.

Carers leave comes from your sick leave entitlement if / when you need to care for sick dependants. You are eligible for carers leave when a dependent child or family member requires care.

This type of leave is paid at the same rate as your usual pay and to be paid at the same time as your usual pay and cannot be taken on a public holiday.

You are also entitled to two **(2)** days unpaid carers leave on each occasion that you are required to care for an immediate member of your family.

Unpaid leave can only legally be taken when all paid leave is exhausted.

Casual workers are not entitled to be paid carers leave.

7.11. Compassionate Leave

You are entitled to two **(2)** days of paid compassionate leave when a member of your immediate family:

- Has a personal illness that poses a serious threat to their life; or
- Has a personal injury that poses a serious threat to their life; or
- Passes away.

You are required to give notice of your intentions to take compassionate leave as soon as practically possible, and you may be required to submit evidence of relevant illness or circumstances in which you've requested the leave. Without this evidence your employer has the right to refuse your leave application.

Unfortunately casual workers are not entitled to be paid compassionate leave.

7.12. Maternity / Parental Leave

Employees can get parental leave when a child is born or adopted. Parental leave entitlements include:

- Maternity leave;
- Paternity and partner leave;
- Adoption leave;
- Special maternity leave; and
- A right to return to previous job.

Employees who are the primary carer of a newborn or adopted child get eighteen **(18)** weeks leave paid at the national minimum wage. Eligible working dads and partners (including same-sex partners) get two **(2)** weeks leave paid at the national minimum wage. These payments are made directly to the employee.

Employees with greater than twelve **(12)** months continuous service are entitled to twelve **(12)** months unpaid leave for the birth or adoption of their child.

Unpaid leave is a minimum of six **(6)** weeks and a maximum of twelve **(12)** months. You are required to utilise any annual leave entitlement prior to commencing maternity / parental leave entitlements.

You are requested to notify your *(insert position title)* of your intention to take maternity / parental leave, but as a minimum, six **(6)** weeks' notice should be provided.

(insert company name) shall hold a position at the same level and wage for you whilst you are on parental / maternity leave.

For casual employees to be eligible for unpaid parental leave they need to have:

- Been working for their employer on a regular and systematic basis for at least twelve **(12)** months; and
- A reasonable expectation of continuing work with the employer on a regular and systematic basis, had it not been for the birth or adoption of a child.

7.13. Training and Development Leave

Training and development includes leave requirements to attend external company training courses, seminars or work related study during work hours.

Approval of this leave is at the discretion of your *(insert position title)* or as directed by your applicable award. All workers must complete a *(insert name of form)* form and be approved by your *(insert position title)* before the leave is taken.

8. Work Environment

Guidance note (delete this and example later): In this section you should tailor the information based on the general customs and practices of your business. Below is an example to get you started.

8.1. Company Uniforms and Image

(insert company name) provides workers with company uniforms to portray a professional image. When your probationary period has been completed, *(insert company name)* will issue you with a set of company uniforms.

As the apparel becomes worn out or damaged, you are to speak with your *(insert position title)* who will arrange to replace the non-serviceable items. It is your responsibility to keep the uniform washed and presentable.

Footwear shall be issued to you that is safe for the environment you are to be working in and shall be worn at all times.

You will need to comply with any further safety and personal protective equipment requirements of the site.

8.2. Car Parking

Car parking is provided by *(insert company name)* for workers while at work. It is your responsibility to:

- Take care and adhere to sign posted speed limits when entering or exiting *(insert company name)* property or car parking areas and any other traffic directions signposted;
- Travel over speed bumps with caution;
- Do not obstruct fire / emergency equipment, access points or keep clear areas; and
- Other requirements as detailed in the site Traffic Management Plan.

8.3. Work Areas

As workers work in office areas, mobile plant and control rooms and can often rotate from job to job, it is important that your workstation or cabin of mobile plant remains clean and tidy at all times, free of boxes, papers and magazines. Our expectation is that your workstation or mobile plant will be cleared and tidied at the end of every day.

Any items that require storage should be put away, hard copy paper files should be kept to a minimum, with soft copies of files stored on the relevant shared drive electronically. Laptops should not be left on desks overnight unless you have your own lockable office.

Mobile plant cabins shall be swept out at the end of every shift with any rubbish removed and placed in the relevant bins provided. Dash boards will be wiped over and windows and mirrors cleaned.

8.4. Amenities

Please keep the kitchen and bathroom areas clean at all times, cleaning up after use. You should be mindful that these are public areas and you should be respectful to others by always cleaning up after yourself. If you use dishes then wash them immediately after use.

If there are any issues with these facilities you should notify your *(insert position title)* immediately.

8.5. Security

There will be no entry into *(insert company name)* premises during outside of normal business hours.

It is the responsibility of every **(insert company name)** worker to ensure that keys / security passes issued to workers are kept in safe custody. Keys / security passes must be returned upon request from **(insert company name)** management. If building access devices are lost or misplaced, you must notify your **(insert position title)** immediately so that they can be cancelled.

Workers within their area of control shall ensure all confidential / sensitive documents are locked away at night. You should make sure that your personal belongings and valuables are locked away and secured. Personal property is not covered by Company insurance.

(insert company name) management reserves the right to inspect any vehicle, bag or container at its discretion upon a worker entering or exiting the company property.

8.6. Meeting Rooms

If you need to book or use a meeting room please ensure that you book through the Receptionist / Office Manager / booking system. Please tidy up after meetings, take away your dirty cups, files, papers, etc. Place chairs back in position and clean all work areas..

8.7. Printing

Save costs on printing wherever possible by printing on both sides of paper. Please pick up all printed matter off the printer and ensure that the printer is stocked with paper at all times. Colour printing should be kept to a minimum.

8.8. Recycling Bins

Please recycle where you can using the appropriate bins. Only paper and cardboard with NO company, client or candidate information is to be placed into these bins. NO general rubbish is to be placed in these bins.

8.9. Security Disposal / Shredders

Paperwork with any sensitive or confidential **(insert company name)** information needs to be disposed of by either being shredded or placed into the locked security disposal bin. The key for this bin will be the responsibility of the **(insert position title)**. Documents to be placed in the security bins include but are not limited to:

- Company and Client Information;
- Forms and Policies; and
- Terms and conditions.

8.10. Waste Bins

Most individuals will have waste bins under their desk. These bins should be used for any items which are not recyclable e.g.; plastics, metal, pens, food scraps, etc. Please use your discretion and be mindful of disposing food scraps in the office. Liquids should not be poured / placed into bins.

8.11. Questions or Concerns

Your *(insert position title)* is responsible for you when you are on site and any problem or change affecting your employment should be referred to them. If your *(insert position title)* is unable to resolve your problem, they may direct you to an appropriate person or obtain the information and get back to you with an answer.

9. Work Health and Safety

9.1. Work Health and Safety Responsibilities

(insert company name), as the Person Conducting a Business or Undertaking (PCBU) (your employer) shall ensure so far as is reasonably practicable:

- The health and safety of you and other workers while at work; and
- Other persons (visitors and volunteers) are not put at risk from work carried out as part of the business activities.

In addition, *(insert company name)* shall ensure so far as is reasonably practicable, that we supply and maintain:

- A work environment without risks to health and safety;
- Safe plant and structures;
- Safe systems of work;
- The safe use, handling and storage of plant, structures and substances; and
- Any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety at the workplace.

Managers, Supervisors, Superintendents and Team Leaders represent *(insert company name)* management to ensure that safe systems of work are implemented in the workplace.

As a worker, you have a duty and obligation to:

- Take reasonable care that your actions or words do not adversely affect the health and safety of any other person;
- Co-operate with any reasonable policy or procedure relating to health or safety;
- Comply with your roles and responsibilities as identified in *(insert company name)* Work Health and Safety Policies and Procedures;

- Follow any reasonable instructions designed to protect your health and safety and adhere to while at work;
- Not deliberately ignore, disable or damage equipment designed to protect your health and safety and the health and safety of others, e.g. guards, personal protective equipment etc.;
- Take part in rehabilitation and return to work programs; and
- Not endanger yourself or others through the consumption of drugs or alcohol while at work.

Note: Managers, Supervisors, Superintendents and Team Leaders are also workers and therefore must comply with the duties of workers.

9.2. Consultation and Communication

Consultation and communication involves the sharing of information and the exchange of opinions between management and workers.

Consultation between Senior Management, Work Health and Safety personnel, Managers, Health and Safety Representatives (HSRs) and workers on Health and Safety matters, can result in healthier and safer workplaces, improved issue or decision ownership, effective and robust outcomes, stronger commitment by everyone to implement decisions and greater cooperation and trust between all levels of the business.

(insert position titles) shall consult with workers who are, or are likely to be, directly affected by an issue relating to Work Health and Safety.

(insert position titles) shall ensure:

- Relevant information about the Work Health and Safety issue is shared with relevant workers and workers shall be given an opportunity to express their views; and
- Workers are encouraged to contribute to the decision-making process relating to the Work Health and Safety issues and views of workers shall be taken into account when making decisions.

(insert position titles) shall involve and consult workers in the following when:

- Identifying hazards and assessing risks to health and safety arising from the work carried or to be carried out and making decisions about ways to eliminate or minimise those risks;
- Proposing changes to the workplace that may affect their health or safety;
- Monitoring the health and or the conditions of workers at any *(insert company name)* site;
- Making decisions about the adequacy of facilities for their welfare; and
- Providing information and training for workers.

Consultation provides the opportunity for workers experiences and ideas to be considered in decisions which may affect their health and safety while at work. Managers and Supervisors will keep you informed by communicating Work Health and Safety information on issues and outcomes via:

- Pre-start and toolbox meetings;
- Directly to each worker, emails or memos on noticeboards; and
- Monthly Work Health and Safety statistics, safety alerts, bulletins and posters.

9.3. Work Health and Safety Committees (*where in place otherwise remove*)

A Health and Safety Committee (HSC) enables a Person Conducting a Business or Undertaking (PCBU) and worker representatives (on behalf of workgroup/s), to meet regularly and work co-operatively to develop policies and procedures to improve Work Health and Safety outcomes.

The function of (*insert company name*) Health and Safety Committee is:

- Facilitating co-operation between the Person Conducting a Business or Undertaking and workers to instigate, develop and carry out measures to ensure the health and safety of workers;
- Assisting in developing health and safety policies, procedures and systems for the workplace;
- Other functions agreed by the Person Conducting a Business or Undertaking and members of the Health and Safety Committee;
- Keep itself informed as to standards relating to health and safety generally recommended or prevailing in workplaces of a comparable nature and to review, and make recommendations to the company on the rules and procedures at the workplace relating to the health and safety of workers;
- Recommend to the company and workers, the establishment, maintenance and monitoring of programs, measures and procedures at the workplace relating to the health and safety of the workers;
- To consider and make recommendations to the company as the Committee sees fit in respect of, any changes or intended changes to or at the workplace that may reasonably be expected to affect the health safety or of workers at the workplace;
- To consider such matters as are referred to the Committee by a Health and Safety Representative; and
- To perform such other functions prescribed in the *Work Health and Safety Regulations 2012* (SA) or given to the Committee, with its consent, by the employer.

9.4. Resolution of Work Health and Safety Issues

All hazards, issues and complaints are to be reported as soon as practicable or by the end of the shift in which they occurred, to your direct Supervisor or the (*insert responsible position, e.g.: Work Health and Safety Advisor*).

Should the matter remain unresolved, it will then be addressed between the workers' Health and Safety Representative (if in place), and your direct Supervisor.

If still unresolved, it will then be referred to the *(insert senior management position e.g. Site Manager)*.

If the issue is still unresolved, the Health and Safety Committee *(where in place otherwise remove line)* will be convened to assist in resolution.

If still unresolved, it will then be referred to your *(insert senior most position)*.

All workers will be encouraged to discuss all Work Health and Safety matters with their direct Supervisor and any worker at any time in an informal manner; however Work Health and Safety issues must first be directed through the individual's direct Supervisor as per the steps set out in the above procedure which shall be communicated to workers in writing.

Where attempts to resolve a Work Health and Safety issue at the workplace is unsuccessful and the steps of the resolution procedure have been followed a worker may notify the Regulator, SafeWork SA for resolution by an inspector.

Where a worker is dissatisfied with the outcome of an investigation into unlawful discriminatory behaviour and or sexual harassment, the complainant may lodge a complaint with the Human Rights and Equal Opportunity Commission at any time within their statutory limits.

9.5. Hazard Identification and Risk Assessment

A hazard is anything that has the potential to cause harm or long-term health effects to a person / animal, or damage to plant, equipment or the environment.

(insert company name) has assessed all tasks including the operation of plant and equipment in order to identify hazards and risks to the health and safety of the workers and others.

(insert company name) has taken steps to eliminate identified hazards where possible. Where this cannot be achieved, steps have been taken to control the risks using the "Hierarchy of Controls". In addition personal protective equipment (PPE) is provided where required.

9.6. Corrective Action

(insert company name) encourages and empowers all our workers and contractors to correct identified hazards and risks as soon as they become identified. Workers have an obligation to prevent potential harm where it is within their capacity, by eliminating the hazard or controlling the risk.

Where the hazard is beyond your control, it must be reported to your *(insert position title)*. Your *(insert position title)* and they will take action to address the risks to health and safety.

9.7. Principal Mining Hazards (PMH)

A Principal Mining Hazard (PMH) is any activity, process, procedure, plant, structure, substance, situation or other circumstance relating to the carrying out of mining operations that has a reasonable potential to result in multiple deaths in a single incident or a series of recurring incidents.

(insert company name) has identified Principal Mining Hazards associated with our *(insert quarrying / mining)* operations.

(insert company name) develops, implements and maintains Principal Mining Hazard Management Plans in consultation with workers directly associated with Principal Mining Hazards.

Each Principal Mining Hazard Management Plan (PMHMP) documents how the risks to the health and safety of a person arising from the Principal Mining Hazard will be eliminated or minimised so far as is reasonably practicable.

(insert company name) shall provide the relevant Principal Mining Hazard Management Plans to you prior to undertaking any work associated with the Principal Mining Hazards.

Principal Mining Hazard Management Plans are provided to workers in plain, simple and understandable language and are available at / in **(insert location)**.

Guidance note (delete this later): *It is a requirement of the Work Health and Safety Regulations 2012 (SA), that hard copies of Principal Mining Hazard Management Plans are readily available to all workers.*

9.8. Safety Roles for Workers

(insert company name) (insert quarry / mine) has implemented a safety role for the workers that allows you to be involved and contribute to the identification of Principal Mining Hazards and the consideration of control measures for risks associated with Principal Mining Hazards, that are relevant to your work or the work you will be carrying out. Additionally, you will also be involved in the periodic review of Principal Mining Hazard Management Plans.

9.9. Job Safety Analysis

A Job Safety Analysis (Job hazard analysis, Task hazard analysis, etc.) are developed by work teams prior to commencing any task that is not already covered by a procedure, or where a task varies from the standard safe work instruction. The Job Safety Analysis identifies the specific job steps, potential hazards or risks associated with job step (including the immediate work environment) and control measures that reduce the identified risks.

Job Safety Analysis shall be developed by the personnel conducting the task, signed by the work group and reviewed by **(insert position title)** prior to commencing the task.

9.10. Safe Operating Procedures (SOP) **(insert type of document e.g. Safe Operational Procedures)**

(insert company name) has developed **(insert title of document e.g. Safe Operational Procedures)** for all regular performed tasks. Safe Operating Procedures are designed to guide workers in safely carrying out specific tasks or operating plant and equipment, in line with manufacturer's instructions while undertaking their duties.

Your **(insert position title)** will provide you with the relevant information, instruction and training on any **(insert title of document e.g. Safe Operational Procedures)** to a level of competency so you can undertake your duties safely. It is your obligation to comply with any reasonable instruction designed to protect your health and safety and undertake this training and comply with the instruction contained in the procedures.

(insert title of document e.g. Safe Operational Procedures) folders are stored in all mobile plant cabins and located next to the operational controls of fixed plant and equipment.

9.11. Safe Work Method Statements (SWMS for Construction Work)










Safe Work Method Statements (similar to Job Safety Analysis) are developed in consultation with workers who are experienced in the subject matter and have sound knowledge of the task, plant and equipment, this includes, but not limited to, the Safety Coordinator, Project Supervisors, Project Managers, Health and Safety Representatives and experienced workers. If you are involved in carrying out Construction Work you will be provided with a Safe Work Method Statement.

Safe Work Method Statements steps out the process to complete the task, hazards are identified and associated with each step of the process and risk control measures are documented to manage the risks associate with the task.

Your *(insert position title)* will provide information, instruction and training to you on any Safe Work Method Statements you are required to use. It is your duty to undertake this training and carry out each key stage and implement the risk controls contained in the Safe Work Method Statements.

9.12. Safety Signs

You must follow the requirements of all safety signs; these apply to all persons on site. Safety signs alert you to hazards or conditions where a person's health and safety may be placed at risk. If you're unsure or do not know the meaning of a sign, ask your *(insert position title)*, who will explain it to you.

Sign Design & Meaning					
	Mandatory		Prohibited		Hazard Warning
	Danger Warning		Emergency Information		Fire Information
	Caution take care		Mandatory Speed Limit		Instruction

The signage above is not an exhaustive list just a sample

9.13. Personal Protective Equipment

(insert company name) shall provide personal protective equipment (PPE) for your protection where there is no other alternative in managing the risks to health and safety associated with exposure to hazards while performing your duties.

All workers shall, when working in operational areas outside of the office / weighbridge buildings, wear the following minimum personal protective equipment:

- High Visibility long sleeve shirts with the sleeves rolled down at all times and cuffs buttoned (no short sleeve);
- Cargo pants or denim jeans (Hi-visibility overalls can be worn instead);
- Hi-ankle lace or zip up steel capped safety boots (no pull / slip on);
- Hard hat;
- Darkened safety glasses (for sun glare);
- Clear safety glasses (for night, overcast or inside buildings); and
- Glove belt clip with rigger or stinger gloves attached to belt.

Additional personal protective equipment shall be worn wherever indicated by mandatory blue and white signs, procedures or instructions from your **(insert position title)**. It is your responsibility to wear any personal protective equipment provided and to ensure that it is maintained and kept clean.

Where your personal protective equipment becomes lost, damaged or malfunctions, speak with your **(insert position title)** and obtain a replacement before returning to your work.

Speak with your **(insert position title)** about any questions, concerns or if you have not been fit tested or instructed on the correct use and maintenance of personal protective equipment.



The signage above is not an exhaustive list just a sample of mandatory signage

9.14. Sunburn and Skin Cancer

Sunburn is the most common ill effect of over-exposure to the sun. It is well established that ultra violet radiation from the sun is a major cause of skin cancer particularly for people that work outdoors.

Exposure to ultraviolet rays from the sun in the short term may result in sunburn and an accumulation over a longer term may lead to solar keratosis and skin cancer.

It is possible to reduce the likelihood of sunburn as well as the possibilities of preventable skin cancers.

9.15. Sun Protection

(insert company name) has an obligation under the *Work Health and Safety Act 2012* (SA) to provide a safe working environment.

To minimize your exposure while working in an outside environment, you shall:

- Wear darkened safety glasses with ultraviolet absorbing lenses;
- Wear a hard hat with a broad brim, It is a requirement that hard hats are worn in operational areas;
- Wear long pants and a long sleeved shirt and roll your shirt sleeves down with the cuffs buttoned up to keep your skin covered;
- Where your skin is exposed to the sun, use a broad spectrum 30+ SFP sunscreen;
- Make sure the face, neck, arms and any other exposed parts are fully covered with sun screen; and
- Repeat application of sun screen every two hours, or more frequently if sweating heavily.

9.16. Heat Exhaustion and Heat Stroke

Heat exhaustion

This results in collapse of the affected person due to dehydration and overloaded cardiovascular system.

Symptoms include fainting, lethargy, headache, low blood pressure, nausea, clammy, pale or flushed skin and a normal to slightly elevated body temperature (>39°C).

Should heat exhaustion occur:

- Remove any heavy clothing;
- Immediately assist the affected person out of the hot environment;
- Rest the person in a cool place and sponge with cool water if skin is hot and dry;
- Give fluids; and
- Seek medical assistance.

Heat stroke

Heat stroke may appear similar to heat exhaustion, but the skin may be dry with no sweating and the person's mental condition worsens.

They may stagger, appear confused, fit, collapse and become unconscious. Heat stroke occurs when a person becomes dehydrated and their body temperature rises above 40.5C.

This is a medical emergency and can lead to death.

Signs of heat stroke include:

- Irritability, confusion, disorientation, incoherent speech;
- Hot, dry flushed skin;

- Convulsions;
- Loss of consciousness;
- Body temperature > 40°C; and
- Cardiac arrest.

Immediate first aid must be given, while awaiting transfer to hospital. It is essential to cool the person affected by removing heavy clothing, moving to a cool place, sponging with water and vigorous fanning.

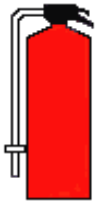
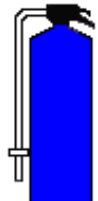

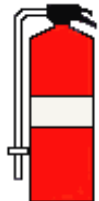
Preventing heat stroke

- Drink plenty of water or other cool, non-alcoholic fluids;
- Stay cool and keep air circulating around you. Use air conditioning in a vehicle or room;
- Eat regular, light meals;
- Avoid drinking extremely cold liquids as they can cause stomach cramps; and
- If activity is unavoidable, try to schedule activity for the cooler part of the day and take rest breaks. Whenever possible, stay in the shade.

9.17. Fire

As in all emergency situations protect yourself and others. Never attempt to fight a fire if it puts you at risk of injury.

Portable fire extinguishers and hose reels are provided to extinguish small fires. They are the first line of defence in the event of a fire. Prompt use of the correct fire extinguisher can prevent serious injury or damage.

Know your portable fire extinguisher IMPORTANT: Read operating instructions on extinguishers Note that there is no single type of fire extinguisher that is effective for all fires.				
Portable Fire Extinguishers AS 1850 AS 2444 Suitable For Use On Fires Involving	WATER  ELECTRICALLY CONDUCTIVE	FOAM  ELECTRICALLY CONDUCTIVE	CARBON DIOXIDE  NON CONDUCTIVE	DRY CHEMICAL  NON CONDUCTIVE
Wood, Paper, Textiles, Rubbish, etc.	YES <small>MOST SUITABLE</small>	YES	YES	YES
Flammable Liquids, Insoluble In Water, Petrol, Kerosene, etc.	NO	YES <small>MOST SUITABLE</small>	YES	YES
Flammable Liquids, Soluble In Water, Acetone, Alcohol, etc.	NO	YES <small>MOST SUITABLE</small>	YES	YES
Oils, Fats, etc.	NO	YES	YES	YES
Live Electrical Equipment	NO	NO	YES	YES
Motor Vehicles	YES	YES	YES	YES

Water extinguisher – Red

Water extinguishers are suitable for use on fires involving wood, paper, plastic and other solid combustible material. The stream of water should be directed at the base of the fire. Do not use water on electrical or fuel type fires.

Foam extinguisher – Blue

Use foam on flammable liquid fuel type fires such as petrol, oils, thinners and solvents. Do not use these extinguishers on electrical fires.

Dry Chemical Powder (DCP) – Red with a Horizontal White Band

These can be used on all fires, but mainly for flammable liquid fires and fires involving live electrical equipment. Dry Chemical Powder is a non-conductive extinguishing agent. It is best used by spraying in a sweeping motion across the flames. These extinguishers are provided in company vehicles and mobile equipment.

Carbon dioxide – Red with a Horizontal Black Band

Carbon dioxide extinguishers can be used on all types of fires but are not always effective. They are best used on electrical and electronic equipment because there is no residue. The carbon dioxide is very cold when released, so use with care. Do not hold the end nozzle when using the extinguisher and do not use in an enclosed space.

All *(insert position title)* shall be provided with basic fire fighting training so that they can assist, if it is safe to do so, in the event of a fire breaking out. Where you are unsure about the location of the fire extinguishers and equipment and how to use them, ask your *(insert position title)*.

9.18. Emergency Response

Where there is an emergency and an evacuation is required, you will hear an alarm or receive instructions to evacuate the area.

Follow these steps:

- Stop what you are doing and turn off any machinery (if it is safe to do so);
- Leave the area by the shortest, most practicable route (closing any fire doors along the way);
- Assist any injured people without placing yourself in danger;
- Assemble at the nominated area, or as directed by the Emergency warden / *(insert position title)*;
- Remain in the emergency assembly point until you are told it is safe to leave or return to work; and
- Do not re-enter the workplace until the all clear is given by the Emergency warden.

(insert position title) are responsible for ensuring that all personnel are present and identifying those who may be absent.

Emergency and evacuation procedures and plans are located adjacent to emergency exits for quick reference in an emergency.

9.19. Fitness for Work - Drugs and Alcohol

It is a requirement that you present for work in a fit state to do the work expected of you. You must not place yourself or others at risk by being under the influence of drugs or alcohol at work. Where you have been found to be in possession or supplying illicit drugs or mind-altering substances in the workplace, you will be immediately removed from site and reported to the local authorities.

In addition you will face disciplinary actions in accordance with the *(insert company name)* discipline and inappropriate behaviour policy, which may include termination of your employment contract.

(insert company name) has implemented a drug and alcohol policy to ensure a work environment free from risk to health and safety. You shall be required to comply with the *(insert company name)* policy and consent to random testing conducted by an accredited organisation.

(insert company name or an authorised person) reserves the right to conduct testing for drugs and alcohol when they have reasonable grounds for believing that a person's behaviour is unusual or erratic at the workplace or that a person is impaired by a drug or under the influence of alcohol.

(insert company name) also reserves the right to conduct testing for drugs and alcohol on any worker who is involved in, or may have contributed to, any one of the following:

- An incident involving collision of any equipment or equipment damage; or
- An incident that results in the death or serious bodily injury of any person; or
- Requires a worker to receive medical treatment.

In line with the *(insert company name)* Alcohol and other Drugs Policy, where a worker refuses to give consent for screening, this will be deemed a non-negative result and the worker will be stood down and asked to immediately leave the workplace and not return until they have a certificate from a doctor of a negative test result.

Further information in relation to alcohol and drug screening is available in the *(insert company name)* Alcohol and other Drugs Policy.

Workers, contractors and visitors must not endanger their own or any other person's health and safety at work by consuming drugs or alcohol. If you attend work in an unfit state due to drugs or alcohol, arrangements will be made to convey you to your accommodation or home.

9.20. Prescribed Medications

If you are being treated with prescribed drugs, you must report this to your *(insert position title)* at the start of the shift. Some drugs may make you drowsy and can prevent you from safely using mechanical equipment. Your *(insert position title)* needs to know if you have been prescribed these kinds of medications. When reporting this information to your *(insert position title)* you need to bring in the medication box / bottle and any other information supplied with the medication.

All information relating to any prescribed medication you are being treated with will be maintained in strict confidence.

9.21. Fatigue Management

Fatigue is more than feeling tired and drowsy. In a work context, fatigue is a state of mental and / or physical exhaustion that reduces a person's ability to perform work safely and effectively.

It can occur because of prolonged or intense mental or physical activity, sleep loss and / or disruption of the internal body clock.

Signs of fatigue include:

- Short term memory problems and an inability to concentrate, blurred vision or impaired visual perception; and
- Tiredness even after sleep, reduced hand-eye coordination or slow reflexes or a need for extended sleep during days off work.

(insert company name) has policies and procedures relating to fatigue management and designated work breaks which allow you to stop, rest, re-energise and recuperate.

To further reduce the risk of fatigue, you should:

- Understand your sleep, rest and recovery needs and obtain adequate rest and sleep away from work;
- Seek medical advice and assistance if you have or are concerned about a health condition that affects your sleep and / or causes fatigue;
- Assess your own fitness for work before commencing work and monitor your level of alertness and concentration while you are at work;
- Avoid alcohol consumption;
- Eat a balance diet; and
- Get regular exercise.

Talk to your *(insert position title)* if you foresee yourself being impaired or experience fatigue which could cause a work health and safety risk e.g. because of a health condition, excessive work demands or personal circumstances.

In addition, keep a look out for signs of fatigue in your work mates and speak to them or your *(insert position title)* should you have any concerns.

9.22. Smoking

Workplace exposure to passive smoking is a significant Work Health and Safety hazard. Smoking is banned in enclosed public places, workplaces or shared areas - *Tobacco Products Regulation Act 1997* (SA).

Smoking is only permitted in designated areas and during designated work break times.

It is **(insert company name)** policy that employees do not smoke at work in the interests of their own health. If you would like to stop smoking, contact quit line on (08) 8291 4141, or go on line at www.cancersa.org.au.

9.23. Hazardous Manual Tasks and Musculoskeletal Disorders

Most jobs involve carrying out some type of manual tasks. However, some manual tasks are hazardous and can cause musculoskeletal disorders (MSDs), such as sprains and strains of muscles, ligaments and tendons.

A Hazardous Manual Task means a task that requires a person to lift, lower, push, carry or otherwise move, hold or restrain any person, animal or thing, either with high, sudden, repeated or sustained force, repetitive movement, awkward posture or exposure to vibration.

A Musculoskeletal Disorder means an injury to, or a disease of, the musculoskeletal system which can occur suddenly or over time (wear and tear).

This does not include an injury caused by crushing, entrapment (such as fractures and dislocations) or cutting resulting from the mechanical operation of plant.

The most serious musculoskeletal disorders are back injuries, often caused by poor lifting techniques. If your job requires you to perform manual handling you will be provided with appropriate mechanical equipment and training in safe manual handling techniques.

If manual lifting of a load is required:

- Do not lift it if mechanical assistance is available – if mechanical assistance is not available, use team lifting where possible;
- Determine if the travel route is clear of obstacles and if you can reduce the frequency of this task;
- Avoid unnecessary bending - do not place objects on the floor if they must be picked up again later;
- Avoid unnecessary twisting - turn your feet, not your hips or shoulders, especially when bending;
- Keep the load close to the body - handle heavy objects close to the body. Avoid a long reach out to pick up an object;
- Lift gradually - lift slowly, smoothly and without jerking; and
- Keep in good physical shape - get proper exercise and maintain a good diet.

If during performing your duties you have indications of muscle strain or discomfort, contact your **(insert position title)** immediately and report it.

9.24. Licences and Certificates / Verification of Competencies

Certain types of plant and equipment requires a specific licence and competencies for the type of work they are going to conduct or plant and equipment they are to operate. Licences are required for motor vehicles (car and road trucks) and high risk work, such as cranes, dogging and rigging, elevated work platforms, scaffolding above 4 metres and forklifts.

Where **(insert company name)** requires you to operate certain plant or equipment or conduct specific work that requires one of the above licence requirements as part of your role, you will be required to undertake training and assessment to obtain the licence and competencies if you do not already have them.

Licences must be carried on the person at all times while operating specific plant and conducting certain types of work.

If you need to renew your licence or require a new one please speak with your **(insert position title)**.

Operators of load shifting equipment have competency requirements to verify they are able to safely operate the equipment.

Types of load shifting plant and equipment are front-end loader, skid steer loader, excavator and dozer.

Recognition of operator competencies can be in the form of:

- Previously issued Notice of Satisfactory Assessment (NSA);
- Statement of Attainment (SoA);
- Certificate of Competency (CoC); or
- Industry Competency Card (ICC).

For you to be able to operate any load shifting equipment on site, you must undergo onsite training and assessment (Verification of Competency) in the use of load shifting equipment in production activities.

9.25. Vehicles and Traffic Control

All drivers or operators of company-owned or leased vehicles and mobile plant must hold an appropriate licence or certificate of competency for that vehicle and obey all rules and regulations. The use of mobile phones while driving a vehicle is illegal unless approved 'hands-free' operation is available.

- Electronic, entertainment devices or mobile phones shall only be accessed during designated work breaks unless authorised by site management;
- Speed limits, stop signs and other road rules must be obeyed by all personnel at all times;
- Use 2 way radios with caution while driving;
- Where any vehicle is found to have a defect or other fault which creates an unsafe condition, it must be immediately repaired or brought to the attention of your **(insert position title)**;

- Any damage to a company vehicle must be reported to your **(insert position title)** as soon as possible; and
- Personnel shall wear high visibility clothing.

9.26. Vehicle and Plant Daily Pre-Start Inspections

All **(insert company name)** vehicles, mobile and fixed plant are provided with Daily Pre-Start Inspection checklists.

It is the operator's responsibility each day before using a **(insert company name)** vehicle or item of mobile plant, to inspect the vehicle or plant using the Pre-Start Inspection checklist to identify if it is safe for daily operation.

These inspections must be done at the beginning of the shift prior to the plant or equipment being released into production. Any problems identified must be reported to **(insert position title)** so they can be repaired.

9.27. Mobile Plant Operation

Do not drive or operate any mobile plant unless you are trained, hold the appropriate licence or certificate of competency and are authorised to do so by your **(insert position title)**.

Only those persons authorised and licensed may operate or direct the operations of cranes and hoists, or operate forklifts. Each vehicle driver and operator of rubber-tyred plant shall comply with site speed limits and traffic control procedures. Personnel shall not use backhoe or excavator buckets to access excavations or machinery.

No person may be transported in a vehicle unless approved seating is available for that person.

9.28. Noise

The effects of loud noise can result in short and long term hearing loss and ultimately impact on your health and safety, not only in the workplace but also in day to day living activities.

Having damaged hearing will cause you to struggle to hear instructions, sounds or normal conversation and communication activities.

To ensure your hearing is not placed at risk of damage from the effects of work related noise, hearing protection must be fit tested and worn at all times when working in noisy environments, where hearing protection is signposted or indicated in work instructions or as directed.

9.29. Hazardous Chemicals

The term Hazardous Chemical refers to those chemicals that have a potential to adversely affect your health or safety or that of other persons. Personnel shall be trained in the safe handling and use of hazardous chemicals.

Before using any chemical or substance refer to the Safe Operating Procedure or Job Safety Analysis for instructions on the safe handling, use and storage including the correct personal protective equipment to be used.

Care should be taken when using or decanting hazardous chemicals. Your work procedures shall ensure that these chemicals are labelled and stored appropriately. If you are unsure contact your *(insert position title)*.

Make sure that the Safety Data Sheet is available and ensure you understand what safety controls are required before using any hazardous chemicals.

Chemicals must only be stored in correctly labelled containers, not in used food or drink containers.



The signage above is not an exhaustive list just a sample of chemical signage

9.30. Chemical Spillage

Notify your *(insert position title)* when any chemical spillage has occurred. Do not rush in to clean up a chemical spill. Ensure you are trained in the correct procedure for spillage clean up.

Use the kitty litter or absorbent granules to block storm water drains where present to prevent the chemical entering the storm water system.

Refer to the Emergency Management Plan, Safe Operating Procedure and Safety Data Sheet for the clean-up procedure and personal protective equipment to be used.

9.31. Personal Hygiene

Personal cleanliness is important to prevent work-related illness and the spread of infection. To reduce the risk of contact with hazardous chemicals through skin absorption or ingestion wash your hands before eating, drinking or smoking.

If working with hazardous chemicals your work clothes should be kept separate from your other clothes and washed separately. Don't take the hazard home!

9.32. Incident Reporting

An 'incident' is any event that results or could have possibly resulted in injury, illness, disease or damage to property, plant and equipment or the environment, this includes near misses.

If you are involved in or witnessed a workplace incident, you must report it to your *(insert position title)* immediately, no matter how minor. Unless instructed by your *(insert position title)*, do not alter the site where the incident occurred, other than to prevent further injury or harm occurring.

Where an incident is reported, your *(insert position title)* will investigate the incident and where applicable, determine the reasons how and why the incident happened. Your *(insert position title)* shall implement (where required) control measures to prevent it from happening again. You may be asked to be involved in the investigation and complete an incident report.

Incident reporting helps to identify hazards in the workplace. Something which causes a minor injury, or a near miss, could cause serious harm if left unaddressed.

By reporting to your *(insert position title)*, you are helping to look after your own safety and the safety of those around you. Reporting also covers you in case you need medical attention and it ensures you meet the claim requirements of workers compensation.

You must not leave the site due to illness or injury, whether personal or work related, without notifying your *(insert position title)* first.

9.33. First Aid Treatment

You must report all injuries to your *(insert position title)* immediately.

If an injury requires first aid treatment, it will be provided as soon as possible by a First Aid attendant.

The First Aid attendant will assess the extent and nature of the injury and determine if you require any further treatment at a medical facility.

A list of trained First Aiders is available at *(insert location/s)*.

9.34. Medical Treatment

The First Aid attendant will assess whether you do require additional medical treatment at a medical facility. If so, the First Aid attendant will notify your *(insert position title)* and make transportation arrangements for you.

Injuries that are not noticeable at the time of an incident, e.g. strains, must be reported to your *(insert position title)* by telephone as soon as possible when they present.

If you get out of hours medical treatment for a work-related injury or illness, you must notify your *(insert position title)* at the start of the next scheduled work day / shift. This action will help to avoid problems with workers compensation should you make a claim in the future.

Prior to returning to work after a work-related injury or illness, you will need to present to your *(insert position title)* a medical or WorkCover certificate from your doctor stating that you are fit to return to pre-injury duties or able to undertake suitable / modified duties.

9.35. Workers Compensation

All employees have a right to claim workers compensation if they are injured at work or have a work related illness. If you are injured at work, you must notify your *(insert position title)* and complete an incident report.

To be eligible for compensation you will also need to complete the WorkCover Claim Form as soon as possible. The form includes a notice of work-related injury. Ask your *(insert position title)* for the appropriate forms.

A Workers Medical Certificate must be provided to your *(insert position title)* to cover all time lost from work due to the workplace related injury.

Note: It is illegal to provide any misleading WorkCover claim information.

9.36. Rehabilitation

You will be required to actively participate in a rehabilitation program to enable your safe return to work.

Your Case Manager and Rehabilitation and Return to Work Coordinator (**remove RRTW Coordinator if not one on site**) will develop Return to Work Plans for you and will continue to monitor your progress until a return to work on pre-injury duties is achieved.

9.37. Plant Maintenance

If you are authorised to carry out any maintenance or dismantle any plant or equipment you must follow the correct safety procedures. Never attempt to service or repair equipment unless you are trained and competent to do the necessary work.

In general:

- All electrical power, compressed air, water, steam or oil supplies must be turned off at the mains;
- All switches, taps and other controls must be turned off at the machine;
- All controls must be locked off and isolated;
- Isolate and lockout all energy sources and remove stored energy before commencing work, for example, airlines should be drained;
- Danger tags or out of service tags must always be used; and
- Try to start the plant or equipment to ensure it cannot be energised.

9.38. Plant and Equipment Isolation and Lock-Out

Isolation and lockout procedures are used to protect you! They are designed to prevent another person activating any equipment, valve, electrical supply, switch or tap that may place you in danger. A system of personal lockout padlocks, hasps, danger tags and out of service tags are used.

If you are authorised to service or repair machinery or equipment you must isolate the power or energy source and lock it in the off position using a lockout padlock on the main isolation switch, valve, etc. prior to commencing work.



Where two or more employees are working on the same equipment all employees must use a lockout hasp and place their own lockout padlock onto it.

The only person who can remove an isolation lockout padlock and danger tag is the person who placed it on the plant or equipment; however, in exceptional circumstances the mine / quarry manager may remove after consulting with the person who placed it and maintenance department and by following a Safe Work Procedure.

Any person found removing another person's isolation lockout padlock and danger tag without authority may be liable to disciplinary action.

9.39. Danger and Out of Service Tags

Danger tags and Out of Service tags are designed to indicate that machinery or equipment is unsafe or out of service and must not be operated or used.

Danger Tag	Out of Service Tag
<p>Each person working on the plant or equipment shall place their own personal danger tag on the main isolation switch or valve once it has been set to the non-dangerous position and locked out.</p> <p>Make sure you have tagged the correct isolator / switch.</p>	<p>This tag does not offer any personal protection. It is primarily used to identify and warn others of faulty equipment or equipment that is being serviced.</p> <p>It can be placed and removed by anyone authorised to do so.</p>
	

9.40. Loose Clothing and Jewellery

Where you are required to operate machinery, you must be aware that loose clothing or jewellery can easily be pulled into machinery. If you are using hand operated machinery, you shall not wear hand jewellery.

Loose jewellery shall not be worn around any machines. Work shirts shall be tucked into pants and the cuffs of shirts buttoned up. Similarly, if you have long hair, your hair must be tied back or wear a hair net around machinery.

9.41. Machinery and Conveyor Guarding

Serious personal injury can occur when people become caught in operating machinery. Machinery guards are designed to prevent access to moving parts where there's a risk of injury.

Therefore:

- Do not operate conveyors or machinery unless the guards are correctly located and appropriately secured;
- Guards should only be removed by authorised personnel after the machinery has been stopped and isolated (locked out);
- Guards must be refitted before machinery is restarted; and
- Report any faulty or defective guards to your *(insert position title)*.

9.42. Hot Work

Hot work is any activity that can generate flame, sparks or heat. Hot work activities may include welding, oxygen acetylene cutting or grinding. This type of work should only be carried out if you are trained and deemed competent to undertake the task.

The main hazards are electric shock, toxic fumes, explosions, fire and burns from hot materials or Ultra Violet rays.

A hot work permit must be completed and signed off by your *(insert position title)* before undertaking the task.

Precautions should be taken where hot work may lead to an increased risk of fire or explosion. An appropriate fire extinguisher must always be within easy reach and a fire watcher on standby in the event of a fire occurring.

Always wear the appropriate personal protective equipment when carrying out hot work. If you are not sure, speak with your *(insert position title)*.

9.43. Ladders

Where work cannot be done at ground level or from an appropriate work platform and a ladder is required to be used. The following conditions apply.

A ladder shall be:

- In good condition and not painted (Paint can hide faults or fatigue fractures that may prove dangerous.);
- Able to extend at least one metre above the platform to be reached;
- Used at a slope no greater than one in four; and
- No metal ladders are to be used for live electrical work.

Place the ladder on a firm footing. Never rest a ladder against an unsecured or moving object. Securely fasten the top of the ladder to prevent sideways movement.

Use stepladders in the correct manner. Do not use machinery, crates or other objects as makeshift ladders.

9.44. Scaffolding

No work is to be carried out from any scaffold where a person or object could fall more than four metres (including mobile scaffolds).

An exception to this rule applies if the employer has obtained written confirmation from a competent person (such as a certified scaffolder) that the scaffold, or the relevant part of the scaffold, is complete. In such cases a scaff-tag will be attached to the scaffold at the entry point.



(Example of scaff-tags)

9.45. Working at Height

A safety harness and appropriate fall arrest device must be worn when working above ground where scaffolding is not provided. It is also required when working on platforms where there is a danger of falling, including elevating work platforms, such as cherry pickers and scissor lifts.

Hand rails, toe-boards and knee rails must be provided for work platforms over two metres high.

Safety harnesses and fall protection equipment shall also be used when working in tanks, silos, product bins and other places where falls may occur.

If you are required to work at heights, appropriate training will be provided to you. No persons are to work at heights without appropriate training and authorisation.

9.46. Confined Spaces

A Confined Space is an area with limited means of entry and exit and that may also have poor ventilation. It may be oxygen deficient (which is defined as an area with oxygen levels below 19.5 per cent of the atmosphere).

There may be a hazardous accumulation of gas, vapour, dust or fumes due to the location, contents, or work activity that takes place.

Confined spaces may include tanks, silos, product bins, excavations or areas under conveyors. It may also include other fixed plant and equipment, or any area which is not designed as a normal work area. These areas are appropriately signed.

No person shall enter a confined space unless they have been trained and deemed competent in confined space entry and there is rescue equipment provided and a confined space sentry in place. Confined space sentries are personnel trained in confined spaces and rescue equipment and procedures. A confined space entry permit shall be completed before any work commences.

No person shall enter a confined space until a formal risk assessment has been conducted to determine whether there is any hazard from:

- Lack of oxygen;
- Engulfment from a free flowing solid or liquid;

- Toxic contaminants;
- Flammable or combustible contaminants;
- Extreme temperature; or
- The work to be performed.

9.47. Respirators

Mining and quarrying health hazards can exist due to excessive levels or the accumulation of dust along with other risks, such as fumes, mist, or vapours which may present a risk to your health and safety.

(insert company name) has respiratory hazards relating to dust being generated from vehicle and mobile plant movement, mineral processing and crushing operations, maintenance activities and weather conditions.

These hazards have been identified and the risks to health and safety have been assessed and risk controls implemented. A key part to manage the risk of exposure is personal protective equipment in the form of respirators.

Respirators include:

- Dust and Fume masks;
- Cartridge type, half-face and full-face masks; and
- Air supplied full-face masks.

Workers shall be fit tested for respirators and required to wear either half or full face respirator equipment. Respirators must be worn where identified in Safe Work Procedures, in areas where identified by signage or where instructed by supervision.

9.48. Compressed Air

Compressed air is not to be used for cleaning your own or any other persons clothing and shall never be directed at any part of the body.

When using compressed air:

- Secure all airline couplings with safety clips;
- Always wear safety glasses or goggles; and
- Do not indulge in horseplay with compressed air - it can cause serious injury or death if compressed air perforates the skin or internal organs.

9.49. Electrical Equipment (Portable)

Prior to using electrical extension cords and portable electrical power tools, inspect the:

- Cord to identify if it has an inspection tag attached and it has not passed its due date of inspection and testing; and
- Casing, cord and plug for any signs of damage.

Where the inspection tag is out of date or damage has been identified, remove from operations, fill out and attach an out of service tag and do not use the equipment.

Return the equipment to your *(insert position title)* for inspection and testing or repairing.

Portable electrical equipment is required to be inspected and tested on a regular three-monthly basis to ensure that it complies with Australian Standards.

All portable electrical equipment shall be used in conjunction with a fixed or portable Earth Leakage Circuit Breaker (ELCB) also referred to as a Residual Current Device (RCD).

These protection devices must be used whenever mains electricity is supplied to moveable electrical equipment through a flexible extension cord.

9.50. Electrical Storms

No place is 100% safe from lightning. However, being aware of, and following proven lightning safety guidelines can greatly reduce the risk of injury or death.

The key to this is “anticipating a high-risk situation and moving to and staying at a lower-risk location”.

When you have been instructed to or you first see lightning or hear thunder, contact supervision and stop all outdoor activities. Where possible, go to the nearest covered building or enclosed car or truck.

All light vehicles, mobile plant and excavator operators shall cease operating, park up and head to the lunchroom / crib room and wait until the “all clear” has been given to return to operational duties.

Outdoor Personnel:

If in a vehicle, stay inside the vehicle;

- Close all doors and windows;
- Do not touch any metal parts connected to the outside of the vehicle;
- Do not touch door / window handles;
- Do not touch radio equipment;
- Do not touch the steering wheel / controls;
- Stay seated with hands in your lap and feet together; and
- Never attempt to leave the vehicle.

Do not shelter inside a truck or vehicle carrying dangerous substances, such as explosives, explosive accessories, fuel, chemicals, etc.

Do not operate your vehicle if it has been struck by lightning, contact supervision and wait for emergency response.

If not in a vehicle or building, stay at the chosen safest location, avoid water, high ground, open spaces, solitary tall trees, and metal objects.

- Crouch down;
- Place feet together;
- Cover ears to minimise hearing damage from the thunder;
- Distance yourself from other people and structures (5m); and
- Listen for further advice.

Inside of a shelter, stay away from doors, windows and avoid water. Electrical appliances (e.g. computers, power tools) should be turned off and unplugged. If appliances can't be unplugged (e.g. telephones), then stay away from them.

Persons injured by lightning do not carry an electrical charge and can be handled safely. Administer first aid to a lightning victim if you're qualified to do so. Contact supervision immediately.

9.51. Blasting

Blasting activities is carried out on a frequent basis for extraction purposes.

Prior to the blasting taking place, the Shot Co-ordinator shall:

- Review your location on site and where they believe you may be at risk from the blast, instruct you to head to a designated area and wait there until the blast has been completed and area deemed safe to re-enter;
- Blast guards shall be positioned at all access points into the blast zone to prevent unauthorised persons from entering the area;
- The site entrance will be manned and closed with a sign displayed stating blasting in progress to prevent entry until the all clear has been given by the Shot Co-ordinator to re-open the site entrance; and
- The blast siren will sound for 5 minutes prior to the blast and continue after until the all clear has been given by the Shot Co-ordinator to reopen the site.

Additionally,

- During charging of, the tie in or stemming a shot, immediate evacuation of all personnel from the blasting pad, back to a safe location outside of the blast zone shall occur when thunder or lightning has been identified.
- No entry into the blasting zone shall occur by any personnel until the dangers of lightning strikes have passed and the "all clear" has been given by the Shot Co-ordinator to re-enter the area.
- Rock drills, mobile plant or vehicles shall not be operated, driven or repaired within six metres of any charged hole.

- Smoking and hot work (such as welding, cutting) and naked lights shall not occur near explosives or blasting agents, including:
 - When loading or carrying explosives;
 - In or around a magazine; and
 - All loaded holes.

Only trained and licensed persons above the age of 18 are permitted to handle explosives or blasting agents.

If undetonated explosives are found, you must contact your *(insert position title)* immediately and remain in the area at a safe distance from the explosives until the *(insert position title)* arrives to cordon the area off.

Unused explosives are to be returned to the magazine on completion of loading holes.

9.52. Site Contact Details

Position	Name	Contact No.
<i>(insert Mine or Quarry Manager)</i>		Mobile: Desk: After Hours:
<i>(insert Work Health and Safety Person title)</i>		Mobile: Desk: After Hours:
Human Resources		Mobile: Desk:
Site Supervisor		Mobile: Desk:
Weighbridge		Mobile: Desk:
Shot Coordinator		Mobile: Desk:

Induction Questionnaire Template

Human Resources / Payroll

Please circle the correct answer

1. What changes in your personal circumstances do you need to notify Human Resources / Payroll about in writing?
 - a) Your Name or Address;
 - b) Medical Conditions;
 - c) Emergency Contacts;
 - d) Bank Accounts; and
 - e) Super Fund
 - f) All of the above

2. When does your pay week finish?
 - a) Monday
 - b) Tuesday
 - c) Wednesday
 - d) Thursday
 - e) Friday
 - f) Saturday
 - g) Sunday

3. How many weeks annual leave are full time and permanent part time workers entitled to?
 - a) 1
 - b) 2
 - c) 3
 - d) 4

4. Any absence or late arrival due to illness, injury or any other reason, and the expected duration of leave must be personally reported to your?
 - a) Co-Workers
 - b) Shift Supervision
 - c) Managing Director

- d) Human Resources
5. When must you report that you will be absence from work?
- a) The day before
 - b) When I'm ready
 - c) As soon as possible to the start of the shift
 - d) Before the end of the shift
6. When you are going to be absent or late for your shift, how must you contact and inform your workplace?
- a) An email
 - b) Telephone call
 - c) Text message
 - d) Facebook
7. How many sick days are full time and permanent part time workers are entitled to a year?
- a) 4 days
 - b) 8 days
 - c) 10 days
 - d) 12 days
8. Sick Leave requires a Doctors Certificate when?
- a) Only taking a single day
 - b) You have two (2) continuous days absent from work due to illness or absent on either a Friday or Monday
 - c) When on annual leave

Work Health and Safety

Please fill in the blanks or circle the correct answer

1. You as a worker have a duty and obligation to?
- a) Ensure that something you do or say, does not adversely affect the health and safety of _____
 - b) Follow reasonable _____ and adhere to Safe _____ designed to protect your health and safety while at work
 - c) Not endangering yourself or others while at work through the consumption of _____ or _____ while at work

2. What steps do you take when you have identified an issue or have a complaint?
- a) Tell a co-worker
 - b) Forget about it
 - c) Report it as soon as practicable or by the end of the shift in which they occurred, to your direct supervision
 - d) Only speak up when you can't deal with it anymore










3. The definition of a hazard is anything that has the potential to cause harm or long-term health effects to a:
- a) Person
 - b) Animal
 - c) Plant and equipment
 - d) The environment
 - e) All of the above

4. What must you do when a hazard is beyond your control?
- a) Arrange to get it fixed by maintenance personnel
 - b) Wait for someone to come along
 - c) Report it to supervision as soon as possible
 - d) Not my problem

5. A safety role for workers means, workers are:
- a) Responsible for safety on site
 - b) Allowed to be involved and contribute to the identification, assessment and control of principal mining hazards that are relevant to your work or the work you will carry out
 - c) Required to monitor contractor compliance
 - d) Responsible for ensuring other workers work safely

6. What do these signs mean?

Please write you answer in the box next to the sign

7. What are the minimum Personal Protective Equipment (PPE) requirements when working in operational areas outside of office / weighbridge buildings?

- a) Hard _____
- b) Long _____ shirt
- c) Long _____
- d) Steel _____
- e) Safety _____
- f) Belt _____ and _____

8. What should you do when a co-worker has been overcome by heat stroke?

- a) Immediate _____ must be given
- b) Cool the person affected by removing _____,
- c) Move the worker to a _____ place, sponging with water and fan vigorously

9. Where there is an emergency and an evacuation is required, you will hear an alarm or receive instructions to evacuate the area.

Follow these steps:

- a) Stop what you are doing and _____ any machinery (if it is safe to do so)
- b) Leave the area by the _____, most practicable route (closing any fire doors along the way)
- c) Assist any _____ without placing yourself in danger
- d) Assemble at the nominated _____, or as directed by the Emergency _____
- e) Remain at the emergency _____ until you are told it is safe to leave or return to work
- f) Do not re-enter the _____ until the all clear is given by the _____ warden

10. Workers may / will be tested for drugs and alcohol when

- a) Supervision believes their behaviour is _____ or erratic
- b) Supervision believes they are impaired by _____ or _____
- c) They are involved in an _____ involving collision of any equipment or equipment damage
- d) They are involved in an incident that results in the death or serious bodily injury of any _____

11. Smoking is only permitted in:

- a) Offices and workshops
- b) Signed designated areas during designated work breaks
- c) Vehicles
- d) Anytime

12. If manual lifting of a load is required:

- a) Determine if the route is _____ of obstacles that you have to travel;

- b) Determine if you can reduce the _____ of this task;
- c) Avoid unnecessary _____ - turn your feet, not your hips or shoulders, especially when bending;
- d) Keep the load _____ to the body
- e) Avoid a long reach out to _____ up an object;
- f) Lift _____ - lift slowly, smoothly and without jerking

13. All operators of specified equipment and mobile plant are required to

- a) Hold a current licence or certificate of competency
- b) Be trained onsite in the machines operation
- c) Undergo an onsite validation of competency (VOC) assessment
- d) All of the above

14. Electronic, entertainment devices and mobile phones shall be used /accessed:

- a) Anytime
- b) Only during designated work breaks or when authorised by site management
- c) Only when the mobile phone rings
- d) When I have stopped driving

15. When are you required to complete a Vehicle / Plant Pre-Start Inspection checklist?

- a) When a fault is identified
- b) At the end of the shift
- c) Each day before driving or operating
- d) At the end of the week

16. When is respirator or hearing protection required

- a) Where it is identified in a work instruction / job safety analysis
- b) When mandatory signage is displayed
- c) When instructed to by supervision
- d) All of the above

17. When can personnel handle and use Hazardous Chemicals in the workplace?

- a) Anytime
- b) When they are instructed to
- c) When they have been trained and verified competent in the chemical's safe handling and use

d) When there is a work instruction for the chemical

18. What do you do when a chemical spill has occurred?

- a) Notify your *(insert position title)* when any chemical spillage has occurred.
- b) Use kitty litter or absorbent granules to block storm water drains where present prevent the chemical entering the storm water system.
- c) Refer to the Emergency Management Plan, Safe Operating Procedures and Safety Data Sheets for the clean-up procedure and personal protective equipment to be used.
- d) All of the above

19. What must you do if you are involved in or witnessed a workplace incident?

- a) Inform supervision before end of shift
- b) Not my problem
- c) Report it to supervision as soon as possible
- d) Tell a co-worker
- e) All of the above

20. What do you do if you sustain an injury?

- a) Wait a while to see if it goes away
- b) Leave site and go to a medical centre
- c) Report it to a first aid attendant and supervision immediately
- d) Inform supervision before end of shift

21. Prior to carrying out any maintenance or dismantle any piece of plant or equipment you must:

- a) Turn off the electrical power, compressed air, water, steam or oil supply switches, taps and other controls
- b) Isolate all energy sources and remove any stored energy
- c) Apply personal danger tags and lockout padlock or out of service tags to isolate the plant and equipment;
- d) All of the above

22. What are the guarding requirements when operating plant and equipment?

- a) Guards can be left off until end of shift
- b) Guards are only be removed by authorised personnel after the machinery has been stopped and isolated (locked out) and must be correctly located and appropriately secured before machinery is restarted
- c) Guards can be left off if the plant and equipment continually keeps stopping
- d) All of the above

23. What are the site requirements for conducting hot works?

- a) Carried out only by trained and competent personnel

- b) A hot work permit must be complete and signed off by your supervisor before undertaking the task.
- c) An appropriate fire extinguisher must always be within easy reach
- d) A fire watcher on standby in the event of a fire occurs
- e) Always wear the appropriate personal protective equipment
- f) All of the above

24. What must be worn when working above ground and there is a risk from falling from heights?

- a) Safety glasses
- b) Steel capped boots
- c) A safety harness and appropriate fall arrest device
- d) Broad brim hat

25. Who is authorised to work at heights and wear a safety harness?

- a) Anyone
- b) Only personnel trained and deemed competent in working at heights
- c) Team leader
- d) Supervision

26. Who can enter a confined space?

- a) Anyone
- b) Only personnel trained and deemed competent in confined space entry
- c) Supervision
- d) Manager

27. What must compressed air not be used for?

- a) Inflating tyres
- b) Operating air (pneumatic) tools maintenance purposes
- c) Cleaning your own or any other persons clothing or body parts
- d) All of the above

28. What must you do when you have identified damage to an electrical cord or a power tool the inspection tag?

- a) Tell supervision by end of shift
- b) Put it back and get another one

- c) Remove from operations, fill out and attach an out of service tag and do not use the equipment and inform supervision
- d) Keep using it

29. When you have been instructed to or you first see lightning or hear thunder, what do you do?

- a) Contact supervision and stop all outdoor activities
- b) Where possible, go to the nearest covered building or enclosed car or truck
- c) All light vehicles, mobile plant and excavator operators shall cease operating, park up and head to the lunchroom / crib room and wait until the “all clear” has been given to return to operational duties
- d) All of the above

30. During blasting activities no person is allowed:

- a) Bypass the blast guards and enter the blast zone
- b) Leave their designated areas
- c) Enter or exit the site
- d) Re-enter the blast zone until the all clear has been given by the Shot Co-ordinator
- e) All of the above

Induction and Orientation Checklist

Administration

Company:

Position:

Name of
Employee:

General Induction

Company Overview	Initial		Initial
Welcome		Stakeholders	
Our Company		Our Mission Vision and Values	
What We Do			

Company Overview conducted by:

Name:		Signature:		Position:	
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Inductee: I have been shown and understand the above items.

Name:		Signature:		Date:	
--------------	--	-------------------	--	--------------	--

Your Employment

National Employment Standards		Incorrectly Paid	
Confidential Medical Information		Superannuation	
Human Resources and Payroll		Hours of Work	
Changing of Bank Account or Personal Details		Wage and Performance Review	
Pay Days		Reimbursement of Expenses	

Employment Overview conducted by:

Name:		Signature:		Position:	
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Inductee: I have been shown and understand the above items.

Name:		Signature:		Date:	
--------------	--	-------------------	--	--------------	--

Leave Entitlements

Annual Leave		Doctors Certificates	
Annual Leave Request Form		Sick Leave Documentation	
Annual Leave Payments		Carers Leave	
Long Service Leave		Compassionate Leave	
Absence from work		Maternity / Parental Leave	
Sick Leave		Study / Training Leave	

Leave Entitlements Overview conducted by:

Name:		Signature:		Position:	
--------------	--	-------------------	--	------------------	--

Inductee: I have been shown and understand the above items.

Name:		Signature:		Date:	
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Induction and Orientation Checklist

Personal Protective Equipment issued to Worker			
Hard hat		Clear safety glasses	
Darkened safety glasses		Glove belt clip with rigger / stinger gloves	
Personal Protective Equipment issued to Worker after probation period			
2x High Visibility long Sleeve shirts		1 x Hi-ankle lace / zip up steel capped safety boots	
2 x Cargo pants or denim jeans		1 x Wet Weather Clothing	
Issue of Personal Protective Equipment conducted by:			
Name:		Signature:	Position:
Inductee: I have been issued the above checked items.			
Name:		Signature:	Date:

Work Environment and Site Orientation			
Company Uniforms and Image		Meeting Rooms	
Car Parking		Printing	
Work Areas		Recycling Bins	
Amenities		Security Disposal / Shredders	
Security		Waste Bins	
Site Orientation			
First Aid Room / Facilities		Fire Extinguishers and Alarms	
Crib / Lunch Room (kitchen facilities)		Emergency Evacuation Assembly Points	
Change rooms / Toilets		Administration Personnel	
Fuel Storage and Refuelling Procedure		Management Personnel	
General Stores Area		Hazardous Chemical Storage Area	
Administration Area (meeting room, offices, etc.)		Workshop / Maintenance Area	
Work Environment and Site Orientation Overview conducted by:			
Name:		Signature:	Position:
Inductee: I have been shown and understand the above items.			
Name:		Signature:	Date:

Induction and Orientation Checklist

Work Health and Safety			
Work Health and Safety Responsibilities		Vehicle and Plant Daily Pre-Start Inspections	
Consultation and Communication		Mobile Plant Operation	
Work Health and Safety Committees		Noise	
Resolution of Work Health and Safety Issues		Hazardous Chemicals	
Hazard Identification and Risk Assessment		Personal Hygiene	
Corrective Action		Incident Reporting	
Principal Mining Hazards (PMH)		First Aid Treatment	
Safety Roles for Workers		Medical Treatment	
Job Safety Analysis (JSA)		Workers Compensation	
Safe Operating Procedures (SOP)		Rehabilitation	
Safe Work Method Statements (SWMS)		Plant Maintenance	
Safety Signs		Plant and Equipment Isolation and Lock-Out	
Personal Protective Equipment		Danger and Out of Service Tags	
Sunburn and Skin Cancer		Loose Clothing and Jewellery	
Sun Protection		Machinery and Conveyor Guarding	
Heat Exhaustion and Heat Stroke		Hot Work	
Fire		Ladders	
Emergency Response		Scaffolding	
Fitness for Work - Drugs and Alcohol		Working at Height	
Prescribed Medications		Confined Spaces	
Fatigue Management		Respirators	
Smoking		Compressed Air	
Hazardous Manual Tasks and Musculoskeletal disorders		Electrical Equipment (Portable)	
Licences and Certificates of Competency		Electrical Storms	
Vehicles and Traffic Control		Blasting	
Chemical Spillage		Site Contact Details	
Work Health and Safety Overview conducted by:			
Name:		Signature:	Position:
Inductee: I have been shown and understand the above items.			
Name:		Signature:	Date:

When completed, return to *(insert position title)* for filing into personal / training file.

Note: The above template shall need to be reviewed and modified to suit your specific operation.



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Document and Records Management Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Document and Records Management Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on Document and Records Management.

Forward

Documents and records form a key part of any Safety Management System.

Document and Records Control is a process of ensuring that documents and records are created, captured, accessed, managed and stored in a methodical, organised and controlled manner.

Because work health and safety documents, such as policies, procedures and plans, communicate important safety information for your site, it is imperative that the information being communicated is current and accurate.

1. Responsibilities

1.1. Management

Management is responsible for ensuring:

- A document and records management system is developed and implemented;
- Appropriate resources are provided for the management of documents and records; and
- Information, training and instruction is provided on the document and records management system.

1.2. Supervisors

Supervisors are responsible for ensuring:

- Current documents are available and accessible to workers; and
- Workers have been provided with training and instruction on document and records management.

1.3. Workers

Workers are responsible for:

- Adhering to the document and records management process; and
- Participating in the review of documents and records as required.

2. Document Control

The range and detail of policies, procedures and plans that form part of your Safety Management System will depend upon the nature, location and risks associated with your operation.

The document control process should ensure:

- Documents are marked with
 - a version;
 - a date;
 - the relevant area / department (e.g. workshop, quarry, administration, etc.); and
 - title.
- Documents are regularly reviewed and updated;
- Clear timeframes for reviewing documents are detailed (e.g. policies are to be reviewed every 2 years);
- All documents are approved by an authorised person;
- Records of all reviews and updates are maintained;
- Only current documents are available at all locations of access;

- Outdated / obsolete documents are promptly removed from all locations of access;
- Workers are provided with information and training related to the document control process; and
- Documents are maintained as required for legislative requirements.

Your document control process should also stipulate the templates / styles that are to be used for documents, for example:

- The style and format for policies; and
- The style and format for procedures.

Note: *All documents should be easily accessible to all that are required to use them and be set out in such a way that they are easily read and understood by all that are required to use them.*

3. Records Management

There are various legislative and operational requirements regarding the management of records, these may include, but are not limited to:

- Work Health and Safety Management Plans;
- Contractor Safety Management Plans;
- Training and qualification records;
- Health monitoring and assessments;
- Human Resource records;
- Meeting minutes, (e.g. Management team meetings, health and safety committee meetings, pre-start information meetings);
- Hazard identification and risk assessments;
- Details of incidents, investigation findings and corrective actions;
- Details of workplace inspections;
- Regulatory inspections;
- Maintenance records;
- Hazardous chemicals;
- Registered plant records;
- Audits, internal and external;
- Supplier information; and
- Product information.

The document and records management system needs to clearly define the minimum length of time such records shall be required to be maintained.

Note: *The MAQOHSC Document and Records Management Procedure Template provides further advice and guidance on the minimum times records are required to be maintained.*

4. Storage of Documents and Records

Appropriate storage facilities for documents and records shall need to be provided. Storage facilities may incorporate a mixture of hard copies (e.g. in files within filing cabinets) or electronically (computer based filing systems).

Consideration needs to be given to the sensitivity of the documents and records when deciding upon the appropriate storage facilities for your documents and records. Personal details, such as workers names, date of birth, addresses, bank details shall be required to be maintained in secured locations. Additionally there may be sensitive operation information that will be required to be maintained in secure locations.

Records such as training and qualifications and hazard identification and risk assessment records will need to be more accessible to those that require them.

Consideration shall also need to be given as to how long term archive records shall be maintained.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Regulations 2012 (SA)

MAQOHSC Document and Records Management Procedure Template

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Safety Committee
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220 Victoria Square
Adelaide SA 5000

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The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

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Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation's structure.

1. Remove all ***“(insert company name)”*** sections and replace with registered business name
2. Remove all ***“(insert name of quarry/mine)”*** sections and replace with quarry/mine pit name.
3. Remove all ***“(insert senior management position e.g. site manager)”*** and replace with relevant position
4. Remove all ***“(insert location)”*** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all ***“Note”*** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Document and Records Management Procedure Template

(Insert Company Name and Company Logo or Site Photo)

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1. AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on how develop and implement an effective Document and Records Management process.

2. Purpose

The purpose of the *(insert company name)* Document and Records Management Procedure is to ensure that documents and records are appropriately created, captured, accessed, managed and stored in a manner that reflects business, corporate and regulatory compliance requirements.

3. Scope

This procedure applies to all *(insert company name)* documentation and records.

4. Definitions

Term	Definition
Author	The actual author of the document.
Controlled Document	Any document for which distribution and status are required to be kept current to ensure authorised users have the most current version.
Data	Information used to control the process that affects the final product (e.g. reference values, benchmarks).
Document Control	The process established in this procedure to define controls needed for the management of Work Health and Safety documentation.
Document Control Form	The Form used to create or change a document.
Document Control Number	The number assigned to a document when it is entered into the document register as a controlled document. This number will always be the next sequential number in the register. This number is to be recorded on the controlled document in the <i>(e.g. top left corner of the header)</i> .
Document Control Register	A list which identifies all <i>(insert company name)</i> documents and includes current revision status.
Uncontrolled Document	A copy of a controlled document. Uncontrolled documents may not be the latest version.

5. References

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

(insert company name) Document Review Form

(insert company name) Document Communique Form

(insert company name) Document Control Register

6. Responsibilities

6.1. Managing Director *(most senior person)*

The *(insert senior management position e.g. site manager)*, is responsible for:

- Ensuring the effective implementation of the document and records management system;
- Ensuring that appropriate resources are provided for the management of documents and records;
- Ensuring information, training and instruction is provided on the document and records management system; and
- The review and final approval of all *(insert company name)* documentation.

6.2. Document Controller

The Document Controller is responsible for:

- Managing the document control and records management process;
- Checking the quality of documents;
- Ensuring documents are developed using correct styles and format;
- Maintaining the document register;
- Maintaining all *(insert company name)* records;
- Ensuring that only approved current versions of documents are available for use; and
- Archiving of all obsolete documents and records.

6.3. Workers

Workers are responsible for:

- Obtaining documents from the approved location;
- Not making copies (uncontrolled documents) of documents; and
- Participating in reviews of documents as required.

7. Procedure

7.1. Document Creation

Any *(insert company name)* employee or contractor may identify and request the need for a new document. *(insert position title e.g. area manager/supervisor)* shall be consulted on the need for any documentation. *(insert position title e.g. area manager/supervisor)* shall then verify if there is a document already existing within the Safety Management System meeting the requirements of the request. Where no suitable document exists *(insert position title e.g. area manager/supervisor)* shall arrange for the document controller to develop the new document.

The requirement for new or additional documents may be based on, but not limited to:

- Legislative requirements;
- Suggestions from workers;
- Suggestions from the Health and Safety Committee (if in place);
- System failures reported or identified during incident investigations;
- Internal or external audit findings;
- Outcomes of workplace inspections and monitoring;
- Industry or organisational best practice; or
- Changes in business activities and or structure.

The development of all documents shall include consultation and communication with workers who perform the work to ensure key risks are identified.

All Safe Operating Procedures (SOPs) must have a risk assessment conducted which will usually be in the form of a Job Safety Analysis (JSA). For Work Health and Safety documents, draft documents shall be made available through the *(Health and Safety Committee if in place, or through toolbox meetings)* and Management Team for consultation prior to being approved and controlled.

7.2. Document Format

Note: The below formats are an example only. The formats used may need to be modified / adjusted to suit your operational needs.

7.2.1.Policies

The following standard format shall be used for all Policies:

- Purpose and Scope; and
- Responsibilities.

All *(insert company name)* policies shall be signed by *(senior most person e.g. Chief Executive Officer, Managing Director)* and dated.

7.2.2. Work Health and Safety Procedures

The following standard format shall be used for all Work Health and Safety Procedures:

- Title;
- Purpose;
- Scope;
- References;
- Definitions;
- Responsibilities;
- Procedure content;
- Performance measures (where applicable);
- Appendices (where applicable); and
- Review.

7.2.3. Safe Operating Procedures

The following standard format shall be used for all Safe Operating Procedures:

- Title;
- Task Description;
- Competencies required;
- Tools and Equipment;
- Chemicals and Substances;
- Isolations required;
- Permits required;
- References;
- Procedural steps;
- Hazards;
- Risk controls; and
- Acknowledgement sign off.

7.2.4. Document Properties

All **(insert company name)** shall display the following document properties:

- Document control number;
- Version number;
- Issue date;
- Review date;
- Document Owner; and
- Document approver.

7.3. Consultation and Communication

Consultation on new or revised documents is required prior to approval. The key method for consultation is through the established *(Health and Safety Committee if in place, or through toolbox meetings)*.

Evidence of consultation shall be documented through meeting minutes, memorandums or emails and records maintained. Feedback shall be reviewed and incorporated into draft documents, where relevant, and a final draft prepared by the Document Controller for approval.

7.4. Document Approval

New or revised final draft documents shall be approved by the *(insert senior management position e.g. site manager)*.

Once approved, the final controlled document shall be released by the Document Controller via the *(insert how e.g. Company intranet, site notice board, company electronic server, etc.)* and communicating requirements to relevant personnel to allow implementation.

7.5. Document Review

All documentation that forms part of *(insert company name)* Safety Management System shall be formally reviewed at least once every three years in order to ensure it is still up to date. Reviews may be scheduled or unscheduled.

The review shall ensure that the following is considered:

- The continuing suitability and relevance of the documentation;
- The accuracy and clarity of the documentation;
- Compliance with current legislative requirements;
- The effectiveness of the document in achieving desired outcomes;
- Identified areas requiring improvement;
- The creating of any new documents and removal of obsolete documents; and
- The status / currency of any attachments / references included in the documents.

7.6. Obsolete Documents

Obsolete controlled documents are those which are no longer required, replaced or superseded as determined by the needs of the Safety Management System. Obsolete documents may be identified as part of the review process and shall be removed from the website and appropriately archived to prevent unintended use. Archived documents must be retained and accessible for system evaluation and legal purposes.

All documentation identified as obsolete shall be removed from points of issue by the Document Controller, archived electronically (if applicable) or in hard copy and retained for system evaluation purposes and legal requirements (where relevant).

7.7. Document Control Register

A Document Control Register shall be maintained by the Document Controller for all *(insert company name)* documentation created or modified.

The Document Control Register shall include the following information:

- Document number;
- Document type;
- Document title;
- Issue date;
- Revision number;
- Description;
- Review date; and
- Owner.

7.8. Records Management

The purpose of Record Management is to ensure that business activity records of evidential quality are created, managed and disposed of in accordance with legal requirements.

Records can include, but are not limited to, the following:

- Work health and safety local action plans;
- Internal evaluation reports;
- Hazard and other registers;
- Corrective actions registers;
- Workplace inspections;
- Risk assessments;
- Training needs analysis and plans;
- Incident / Hazard reports;
- First Aid treatment;
- Licensing and certification;
- Registrations;
- Health and Safety Committee meeting agendas and minutes;
- Training and induction checklists;
- Performance management plans;
- Emergency evacuation reports;
- Maintenance, inspections and testing;
- Health monitoring reports and testing;
- Research approvals / authorisations; and
- Claims management and Rehabilitation case records.

Note: *The above list is an example and shall need to be modified to suit your operation.*

7.9. Records Retention

Records shall be retained in accordance with the retention schedule set out in Appendix A of this procedure.

Business Critical Company Email or Company Email received by and issued from the organisation shall be retained in the **(insert location)** if they carry information or evidence that is required for legal or other purposes, (e.g. Issue and receipt of a report to stakeholders or regulatory bodies, and / or evidence of when a particular stakeholder or regulatory request was received).

It is unnecessary to retain email of a temporary nature.

7.10. Records Storage

All controlled documents are to be stored within the appropriate document libraries in / on the **(insert location e.g. Company server)** and made available to all workers via the **(insert how e.g. Company intranet, site notice board, company electronic server, etc.)**. These files are stored on an electronic server system which is regularly backed up and archived.

A library of external documents shall be maintained in / on the **(insert location e.g. Company server)** for access by workers. This may include:

- Legislation (Acts and Regulations);
- Approved Codes of Practice;
- Australian Standards;
- Guidelines;
- Industry Codes; and
- Any other external document referenced in the Work Health and Safety Documentation.

Records may also include externally produced documentation, such as external consultancy reports, statutory compliance notices or safety data sheets used as part of a work health and safety activity.

Records generated may be in the form of hardcopy or electronic media. Records must be stored in an orderly manner, be easily identifiable to facilitate their efficient and effective retrieval / replacement by any authorised person for purposes such as:

- Analysis / investigation;
- Internal / external evaluation;
- Evidence of legal compliance;
- Evaluation and review; and
- Training needs.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 83

Appendix A: Retention Schedule of Records

Element	Document Description	Retention Time
Policy	Work Health and Safety Policies	Life of Mine / Quarry Archive electronically. Destroy 10 years after mine closure
Legal and Other Requirements	Work Health and Safety Legal Compliance Register	Life of Mine / Quarry Archive electronically. Destroy 10 years after mine closure
	Workers Compensation Records	Life of Mine / Quarry Destroy 30 years after employment ceases
	Notifiable Incidents	5 years from date of incident then archive
	Accidents, Incident Forms and Investigations	Life of Mine / Quarry Destroy 30 years after employment ceases
	Incident / Injury Registers	Life of Mine / Quarry Archive electronically after mine closure
	Records relating to breaches or failure of the company to meet compliance requirements	Life of Mine / Quarry Archive 2 years after actions complete
	Bonds and Liabilities	Life of Mine / Quarry Archive once legal liabilities have been met
	Routine reports to Government Agencies	Life of Mine / Quarry Destroy 10 years after action complete
	Records relating to the management of risks associated with equipment required under Work Health and Safety legislation	Life of Mine / Quarry Archive electronically after equipment decommissioned
	Statistics submitted to Government Agencies	Archive 2 years after action complete
	Routine correspondence, including minor complaints and suggestions	Destroy 10 years after actions complete
	General insurance records	Archive policy after superseded and Destroy after 7 years
	Records relating to pest control	Destroy 10 years after actions complete

	Registered plant (mobile cranes, hoists, boom type elevated work platforms, gantry cranes >5t)	5 years
	Asbestos work	40 years from date of last entry
Hazard Identification and Risk Management	Records relating to the implementation of practices within the Company	Life of Mine / Quarry and archive when superseded
	Hazard and Risk Register	Life of Mine / Quarry
Improvement Planning	Records relating to the development and provision of strategic, corporate or business plans for the organisation	Life of Mine / Quarry Archive 2 years after action complete
	Health Safety Environment Management Plans	Life of Mine / Quarry Archive electronically 2 years after actions completed
	Objectives and Targets	Life of Mine / Quarry Archive electronically 2 years after actions completed
Training Competency and Awareness	Training and competency records, including traineeships, apprenticeship records	Place on personnel training files, in <i>(insert location e.g. Company server)</i> Archive after worker has ceased employment
Supplier and Contractor Management	Registers of contractors and suppliers	7 years Destroy
	Routine Correspondence	2 years Destroy after actions complete
	Records relating to hiring and use	7 years Destroy after actions complete
Documentation and Document Control	Documents relating to procedures, plans, registers	Life of Mine / Quarry Archive when superseded
Communication and Consultation	Routine correspondence	2 years Destroy 2 years after actions completed
	External Committees in which the Company has significant involvement	Archive 2 years after actions complete
	Confirmed minutes, agendas, reports, submissions	Life of Mine / Quarry Archive after actions complete
	Records relating to the	Life of Mine / Quarry

	establishment and training of Work Health and Safety Committees	Archive after actions complete
	Database of complaints and communications	Life of Mine / Quarry Maintain and archive
	Suggestions from personnel	2 years Destroy 2 years after actions complete
Operational Control	Records relating to the implementation of Work Health and Safety Systems and Procedures	10 years Destroy 10 years after actions complete
	Master copy of procedure manuals	Life of Mine / Quarry Archive after superseded
	Voting materials for Health and Safety Representatives, including notices, nomination forms, ballot papers	Remain on file until next round of elections then destroy
	Task related training information in relation to provision of information, instruction and training where the work involves any plant, substances or activity that is a risk to health or safety.	5 years from the date of the last entry or a worker ceases employment then archive
	Test results for supply of hired / leased plant	So long as the person hires or leases the plant to other persons.
	Mine Record	Life of Mine / Quarry Archive after 7 years
Management of Change	Change Management	Life of Mine / Quarry Archive 2 years after actions complete
Emergency Management	Emergency Management Plans	Life of Mine / Quarry Archive after superseded
	Emergency drills	Life of Mine / Quarry Maintain in electronic database (<i>insert location e.g. Company server</i>)
	Training of emergency response personnel	Life of Mine / Quarry Maintain in individual files and (<i>insert location e.g. Company server</i>)
Measuring and Monitoring	Calibration data, field sheets	Life of Mine / Quarry Archive after 2 years if actions complete

	Air Monitoring Results	30 years after the date the record was made then archive
	Health Monitoring (noise, dust, lead, dpm)	30 years after the date the record was made then archive for the life of the Mine / Quarry
	Records relating to remedial actions taken as a result of inspections, audits or other actions	Life of Mine / Quarry Archive after 2 years if actions complete
Non Conformance, Incident and Action Management	Records of hazard reports, inspections, audits and investigations	Life of Mine / Quarry Maintain in database (<i>insert location e.g. Company server</i>)
	First Aid Registers of injuries and treatments	30 years Destroy 30 years after employment ceases
	Work related injury claims / compensations	30 years Destroy 30 years after employment ceases
	Records relating to accidents to members of the public not resulting in Workers' Compensation claims	30 years Destroy after 30 years
	Records of accidents and damage occurring to premises	7 years Destroy after 7 years
	Records relating to illegal entry of premises and resulting damage and / or theft	7 years Destroy after 7 years
	Records relating to accidents in which vehicles maintained or used by the Company are involved	30 years Destroy after 30 years
Data and Record Management	Administrative records relating to the hiring and use of consultants, including: copies of the specifications; quotations; copies of the contract; payment / accounting records; summaries of consultant evaluations	Destroy 7 years after action complete i.e. the completion of the contract. Where consultants have been involved in research and development projects these records should be kept for the length of the rest of the project records
	Routine installation, maintenance and repair records, excluding	Destroy 5 years after action complete

	maintenance / servicing contracts	
	Attendance records (electronic or paper)	Life of Mine / Quarry Archive 2 years after action complete
	Records relating to administrative matters and material held for information purposes only, including housekeeping and work area inspections	Destroy 2 years after action complete
	Records relating to the acquisition of vehicles through any means, including purchase and lease	Destroy 7 years after action complete
	Records relating to the disposal of vehicles through any means, including sale, transfer, auction	Destroy 7 years after action complete
	Records relating to repairs and maintenance (excluding maintenance contracts). Includes registration records	At least 5 years or as directed in Codes of Practice
	Test and Tag records <ul style="list-style-type: none"> • Electrical • Fire Equipment • Chains and Slings 	Until the next test date then archive until removed from service or decommissioned
	Ventilation systems – monitoring and testing	7 years then archive for the life of Mine / Quarry
	Plant risk assessments	Life of equipment
	Residual Current Devices	Until the next scheduled test or permanently removed from service
	Plant with presence-sensing safeguarding system	5 years or the life of the plant or until the person relinquishes control of the plant or it has been altered
	Working on energised electrical equipment	Risk Assessment - 28 days then archive
	Safe Work Method Statements - Electrical Work	Until completed then archive

Performance Assessments	Records relating to the implementation of Performance Management at the Company	Life of Mine / Quarry Archive after 2 years
-------------------------	---	--

	Records relating to program evaluation	Life of Mine / Quarry Archive 2 years after actions complete
Audits	Records relating to external audits	Life of Mine / Quarry Archive 2 years after actions complete
	Records relating to internal audits	Life of Mine / Quarry Archive 2 years after actions complete
	Records relating to other audits or functions of the operation carried out by the Company	Life of Mine / Quarry Archive 2 years after actions complete
	Records relating to certification of the Company's systems by external organisations	Life of Mine / Quarry Archive 2 years after actions complete
Management Review	Master set of minutes, agendas, reports, submissions and other meeting papers	Life of Mine / Quarry Archive 2 years after actions complete

8. Revision

This Procedure will be revised as required and at no later than two years from the date of last major revision

Revision	Review / Edit Date	Reason for Review	By whom reviewed

Signed: _____
(insert senior management position e.g. site manager)

Date: _____

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

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Document Review Form

Document Controller:

Date: / /

Document Details:

Document Title:

Document Number: Version: Revision:

Is a Job Safety Analysis attached? Yes ☐ No ☐

Review:

Review Reason: New Document ☐ Revised Document ☐

Changes made:

Document Issue Date: Next Review Date:

Document Writer:

Name: Title:

Signature: Date:

Document Reviewers:

Name: Signature: Date:

Name: Signature: Date:

Name: Signature: Date:

Document Authorisation:

Name: Title:

Signature: Date:

Please forward this completed form with the attached document to the Document Controller.

Document Control Register Template

What is a Document Control Register?

A Document Control Register is a list which identifies all business documents and includes current revision status. It ensures that all documents and records are appropriately created, captured, accessed, managed and stored in a manner that reflects business, corporate and regulatory compliance requirements. A Document Control Register shall be maintained by the Document Controller for all documentation created or modified.

The Document Control Register shall include the following information:

- Document Number;
- Document Type;
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- Owner.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

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February 2020

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Forward

An incident is any occurrence that has resulted in or has the potential to result in adverse consequences to persons, the environment, property or a combination of these; this also includes any significant deviation from a safe operating procedure (or the like).

In the unfortunate event of an incident occurring at your site, you have a duty under the South Australian Work Health and Safety legislation to ensure the incident is investigated and in certain circumstances, reported to the Regulator.

Having an effective incident reporting and investigation process in place will not only enable you to meet your legislative obligations but provide you with the tools to gather and analyse information and facts relating to the incident. This will then enable you (and the investigation team) to identify the “contributing factors” that lead up to the incident and finally to identify controls to prevent the incident reoccurring.

Instructions

It is important that you completely review this tool prior to use and ensure that where required changes in terminology, titles, etc. are made to ensure that this document will accurately reflect your organisation’s structure.

1. Remove all **“(insert company name)”** sections and replace with registered business name
2. Remove all **“(insert name of quarry/mine)”** sections and replace with quarry/mine pit name.
3. Remove all **“(insert senior management position e.g. site manager)”** and replace with relevant position
4. Remove all **“(insert location)”** sections and replace with identified site location
5. Delete cover page, back page, forward and instruction section above once document is completed
6. Delete all MAQOHSC wording on headers and footers and replace with own business name
7. Delete all **“Note”** sections from document
8. Ensure that the page numbers in the footer align with the correct page in the document.

Incident Reporting and Investigation Procedure Template

(Insert Company Name and Company Logo or Site Photo)

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1. AIM

The aim of this Guidance Material is to provide a Person Conducting a Business or Undertaking (PCBU) with practical guidance on how to develop and implement an effective Incident Reporting and Investigation process.

2. Purpose

The purpose of the *(insert company name)* Incident Reporting and Investigation Procedure is to set out and define the requirements for all incidents to be reported and investigated with preventative and corrective actions implemented to eliminate or minimise the risk of harm and prevent future occurrences.

3. Scope

This procedure applies to all events / incidents occurring at *(insert name of quarry/mine)* Mining Lease, Exploration Leases and surrounding tenements and operations.

This procedure applies to all *(insert company name)* employees, contractors and visitors when involved in *(insert company name)* controlled activities.

4. References

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

(insert company name) Incident Report and Investigation Form

(insert company name) Incident Reporting Checklist

(insert company name) Alcohol and Other Drugs Policy

5. Definitions

Incident	Any occurrence that has resulted in or has the potential to result in adverse consequences to persons, the environment, property or a combination of these, this includes any significant deviation from a Safe Operating Procedure, Safe Work Method Statement, Job Safety Analysis, etc.
Near Miss	An incident where no injury or damage occurred (a close call).
Injury	Harm resulting from a person's employment which requires, first aid treatment, medical treatment or results in fatality. An injury may result from a single event, a single exposure or long term exposure.
First Aid Injury (FAI)	A minor work related injury that only requires first aid treatment.

Medical Treatment Injury (MTI)	<p>A work related injury that requires treatment by a registered medical practitioner, occupational health nurse or paramedic, including being provided prescription medication.</p> <p>Note: <i>This does not include diagnostic procedures, observation, counselling or treatment as an outpatient in a hospital.</i></p> <p><i>Certain Medical Treatment Injuries are notifiable incidents requiring reporting to the Regulator.</i></p>
Restricted Duty Injury (RDI)	<p>A work related injury that results in the worker being assigned an alternative task or placed on modified duties on a temporary basis, based on consultation with the PCBU and a registered medical practitioner.</p>
Lost Time Injury (LTI)	<p>A work related injury that results in one or more full days / shifts away from work following the day / shift when the incident occurred.</p>
Non-Work Related	<p>Any injury resulting from an activity that is not part of the persons work duties or operational tasks.</p>
Property Damage	<p>An incident that has resulted in damage to property or equipment.</p>
Environmental Incident	<p>Any incident that results in damage / pollution to the environment. This includes ground, air and water.</p>
Notifiable Incident	<p>The <i>Work Health and Safety Act 2012 (SA)</i>, Section 35</p> <p>A notifiable incident means:</p> <ul style="list-style-type: none">• the death of a person; or• a serious injury or illness of a person; or• a dangerous incident.
Mining Incident	<p>The <i>Work Health and Safety Regulations 2012 (SA)</i>, Regulation 675V</p> <p>A mining incident means:</p> <p>An incident (other than a notifiable incident) that:</p> <ul style="list-style-type: none">• results in illness or injury that requires medical treatment within the meaning of item 13.2 of Schedule 24; or• is a high potential incident.
Corrective Action	<p>An action taken to mitigate the cause/s of an existing undesirable event in order to prevent reoccurrence.</p>
Root Cause	<p>The basic cause(s) which can be reasonably identified which, when controlled, will prevent or minimise the un-wanted event from reoccurring.</p>

6. Roles and Responsibilities

6.1 Senior Management / Site Manager

The *(insert senior management position e.g. site manager)* is responsible for:

- Ensuring appropriately qualified and trained personnel are available to complete incident investigations;
- Ensuring all incidents are reported and investigated with corrective actions identified and implemented;
- Conducting external communications as required;
- Notifying appropriate regulatory body of events as required;
- Ensuring controls identified in the incident investigations are incorporated into the Safety Management System for the mine / quarry; and
- Ensuring reviews of implemented controls are conducted.

6.2 Work Health and Safety Coordinator *(if in place)*

The Work Health and Safety Coordinator is responsible for:

- Communicating to all workers, the requirement to report all incidents;
- Providing information, training and instruction to workers on the process for reporting of incidents;
- Managing all workplace incidents by assessing risks associated with all reported incidents and implementing appropriate controls to prevent a reoccurrence;
- Initiating and lead incident investigations using the Incident Report and Investigation Form Template as required;
- Ensuring compliance with the requirements for reporting notifiable incidents to relevant regulatory bodies;
- Communicating incident investigation findings and preventative control measures to all workers;
- Reviewing outstanding actions and investigations to ensure timely completion; and
- Recording all incidents into the *Work Health and Safety Incident Register*.

Note: *Should there not be a Work Health and Safety Coordinator in place these responsibilities shall need to be added to those of another position, for example the site manager or site administrator.*

6.3 Supervisors

Supervisors are responsible for:

- Ensuring that workers have received training and instruction on incident reporting requirements;
- Ensuring the welfare of injured persons;
- Ensuring the scene is secured for investigation;
- Notifying the *(insert senior management position e.g. site manager)* of all incidents;

- Documenting the incident on the Incident Report and Investigation Form Template prior to the end of the shift, including witness statements;
- Implementing corrective actions that are identified from the investigation; and
- Participating in reviews of implemented corrective actions.

6.4 Health and Safety Representatives (HSRs) *(if in place)*

The functions of the Health and Safety Representative may include:

- Participating in the incident investigation process in consultation with the *(insert senior management position e.g. site manager)*;
- Assisting with providing information to workgroups in relation to the incident investigation findings and corrective actions; and
- Assisting with the review of corrective actions.

6.5 Health and Safety Committee *(if in place)*

The functions of the Health and Safety Committee may include:

- Contributing to the review of the incident investigation findings;
- Assisting with providing information to workgroups in relation to the incident investigation findings and corrective actions; and
- Assisting with the review of corrective actions.

6.6 Workers

Workers are responsible for:

- Immediately reporting all incidents (injuries, damage, system failures and near misses) to their Supervisor;
- Rendering any assistance required to ensure the area is made safe, if safe to do so;
- Providing first aid treatment to any injured persons, if safe to do so and worker is first aid trained;
- Providing a witness statement if required;
- Participating in any incident investigations as required; and
- Participating in reviews of corrective actions, as required.

7. Procedure

7.1. Initial Response

- 7.1.1. All incidents (including near misses) shall be reported immediately to an individual's immediate *(team leader/supervisor)* and in the case of contractor personnel, to their nominated *(insert company name)* representative, via *UHF Channel? or Phone xxxx xxx xxx*.

- 7.1.2. When calling an emergency via UHF or phone state “Emergency, Emergency, Emergency” wait for a response and then describe the scenario, stay on the line until informed not to by **(team leader/supervisor)** or **(insert senior management position e.g. site manager)**.
- 7.1.3. If requested to, phone ambulance fire, police by calling 000.
- 7.1.4. Immediate action shall be taken to eliminate or minimise risks associated with the incident and ensure the area is made safe, if safe to do so.
- 7.1.5. First aid shall be rendered to injured persons, if safe to do so.
- 7.1.6. Evacuate to the nearest Emergency Assembly Point if required or advised to.
- 7.1.7. All incidents involving an injury shall be immediately reported to **(insert senior management position e.g. site manager)**.
- 7.1.8. The incident scene shall be protected to ensure evidence required for investigation purposes is not compromised and to allow review by **(insert company name)** management and or the relevant Regulator as required. This may include barricading or taping off of an area.

7.2 Incident Notification (Internal)

- 7.2.1. As per 7.1.1, all incidents must be immediately notified to an individual's **(team leader/supervisor)**.
- 7.2.2. The **(team leader/supervisor)** shall notify their **(area manager/site manager)**.
- 7.2.3. All incidents involving mobile equipment, plant or with a risk ranking greater than LOW (as per the **insert company name** risk matrix see Appendix A) shall require the involved persons to undergo Fitness For Work testing as per the **(insert company name)** Alcohol and Other Drugs Policy.
- 7.2.4. All incidents shall be reported using the **(insert company name)** Incident Report and Investigation Form.
- 7.2.5. The Incident Report section of the Incident Report and Investigation Form shall be completed and submitted to **(insert title of relevant position e.g.: WHS Coordinator)** by the end of the shift that the incident occurred in.

7.3 Incident Notification (External)

Notifiable incidents as referenced in South Australian legislation (listed below) shall be communicated to the relevant Regulator by the **(insert senior management position e.g. site manager)** as soon as is reasonably practicable to do so.

Electric Shock:

All incidents involving electricity must be reported to the Office of the Technical Regulator by the electrical worker or the occupier of the premises where the incident occurs using the “Electric Shock and / or Incident Report Form” available from the Office of the Technical Regulator - <https://www.sa.gov.au/topics/water-energy-and-environment/electrical-gas-and-plumbing-safety-and-technical-regulation/incident-reporting/reporting-electric-shocks-and-incidents>

Electric Shock and / or Incident Reporting
Phone: 8226 5518 (Monday–Friday, 8.30am to 4.30pm)
Phone: 1800 558 811 (24 hours)

Work Health and Safety Notifiable Incidents:

SafeWork SA must be notified as soon as practicable after having become aware of the notifiable incident via the fastest means possible. In most cases this will be by phone: **1800 777 209** (24 hours), notification may also be made via email or fax using the “Notifiable Incident and Mining Incident Report Form”, available from SafeWork SA - http://www.safework.sa.gov.au/show_page.jsp?id=113290#.WDuTipq7rIU

Incidents, as referenced in the *Work Health and Act 2012* (SA) and the *Work Health and Safety Regulations 2012* (SA), are:

Work Health and Safety Act 2012 (SA)

Section 35 – Notifiable incident

Notifiable incident means:

- a) the death of a person; or
- b) a serious injury or illness of a person; or
- c) a dangerous incident.

Work Health and Safety Act 2012 (SA)

Section 36 – What is a serious injury or illness

Serious injury or illness of a person means an injury or illness requiring the person to have:

- a) immediate treatment as an in-patient in a hospital; or
- b) immediate treatment for:
 - (i) the amputation of any part of his or her body; or
 - (ii) a serious head injury; or
 - (iii) a serious eye injury; or
 - (iv) a serious burn; or
 - (v) the separation of his or her skin from an underlying tissue (such as degloving or scalping); or
 - (vi) a spinal injury; or
 - (vii) the loss of a bodily function; or
 - (viii) serious laceration; or
- c) medical treatment within 48 hours of exposure to a substance, and includes any other injury or illness prescribed by the regulations but does not include an illness or injury of a prescribed kind.

Work Health and Safety Act 2012 (SA)

Section 37 – What is a dangerous incident

Dangerous incident means an incident in relation to a workplace that exposes a worker or any other person to a serious risk to a person's health or safety emanating from an immediate or imminent exposure to:

- a) an uncontrolled escape, spillage or leakage of a substance; or
- b) an uncontrolled implosion, explosion or fire; or
- c) an uncontrolled escape of gas or steam; or
- d) an uncontrolled escape of a pressurised substance; or
- e) electric shock; or
- f) the fall or release from a height of any plant, substance or thing; or
- g) the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with the regulations; or
- h) the collapse or partial collapse of a structure; or
- i) the collapse or failure of an excavation or of any shoring supporting an excavation; or
- j) the inrush of water, mud or gas in workings, in an underground excavation or tunnel; or
- k) the interruption of the main system of ventilation in an underground excavation or tunnel; or
- l) any other event prescribed by the regulations, (Regulation 699A)

Work Health and Safety Regulations 2012 (SA)

Schedule 24 – What is medical treatment

Medical treatment means:

The management or care of a patient including:

- a) the suturing of a wound;
- b) the treatment of fractures;
- c) the treatment of bruises by drainage of blood;
- d) the treatment of second and third degree burns,

but does not include diagnostic procedures, observation, counselling, first aid or therapeutic measures taken solely for preventative purposes.

Work Health and Safety Regulations 2012 (SA)

Regulation 675V

Mining incident

Mining incident means:

An incident (other than a notifiable incident) that:

- a) results in illness or injury that requires medical treatment within the meaning of item 13.2 of Schedule 24; or
- b) is a high potential incident.

High Potential Incident

High Potential Incident means:

An incident or event referred to in section 37(a) to (l) of the Act that would have been a dangerous incident under section 37 if a person were in the vicinity at the time when the incident or event occurred and in usual circumstances a person could have been in that vicinity at that time.

Work Health and Safety Regulations 2012 (SA)

Regulation 699 – Incident notification

Prescribed serious illnesses

For the purposes of section 36 of the Act, each of the following conditions is a serious illness:

- a) any infection to which the carrying out of work is a significant contributing factor, including any infection that is reliably attributable to carrying out work;
 - (i) with micro-organisms; or
 - (ii) that involves providing treatment or care to a person; or
 - (iii) that involves contact with human blood or body substances; or
 - (iv) that involves handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products;
- b) the following occupational zoonoses contracted in the course of work involving handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products:
 - (i) Q fever;
 - (ii) Anthrax;
 - (iii) Leptospirosis;
 - (iv) Brucellosis;
 - (v) Hendra Virus;
 - (vi) Avian Influenza;
 - (vii) Psittacosis.

Work Health and Safety Regulations 2012 (SA)

Regulation 699A – Incident notification

Prescribed dangerous incident

For the purposes of section 37 of the Act the unplanned loss of control of heavy earthmoving machinery (including failure of braking or steering) at a mine is a dangerous incident.

7.4 Incident Investigation

7.4.1 The objective of incident investigations is to determine the causes of an event and identify controls to prevent a reoccurrence. The investigation should aim to:

- Determine where the incident occurred;
- Identify who or what was involved in the incident;
- Identify causes that contributed to the incident (what went wrong);
- Assess the risk (what was the potential for harm); and
- Identify what can be done to prevent a reoccurrence (control measures).

7.4.2 The incident investigation shall assist to identify:

- Sub-standard work practices;
- Design deficiencies;
- Procedural suitability and understanding;
- Training suitability and frequency;
- Equipment / plant serviceability; and/or
- Major hazard types, locations times of events.

7.4.3 Incident investigations are to commence immediately and should include:

- Collection of statements from involved persons;
- Photographs of scene including all equipment;
- Measurements of relevant equipment, markings, tracks etc.; and
- Quarantining of equipment for purposes of review and inspection.

7.5 Investigation Team

7.5.1 The *(insert senior management position e.g. site manager)* shall appoint an investigation team.

7.5.2 The Work Health and Safety Coordinator *(if in place)* shall be involved in the investigation of any incident where the risk is rated as moderate or higher.

8. Incident Investigation Process

The incident investigation process consists of 5 steps:

- Immediate actions;
- Investigation planning;
- Data collection;
- Data organisation and analysis; and
- Recommendations and Report.

8.1. Immediate Actions

- Provide first aid if safe to do so;
- Secure the scene to preserve evidence;
- Inspect the site;
- Check for injured persons;
- Witnesses;
- Position and condition of equipment;
- Safety switches, controls, valves, tools;
- Illumination, visibility, noise;
- Safety barriers;
- Weather;
- Housekeeping;
- Notify key personnel; and
- Conduct fit for work testing for all involved in the incident, (this includes all incidents with a risk ranking greater than LOW on *(insert company name)* Risk Matrix, all injuries, and all near misses).

8.2. Investigation Planning

- Nominate the investigation leader and team members and allocate roles / tasks;

- Develop investigation plan;
- Identify information to be collected; and
- Review previous incidents (similar incidents, reoccurring incidents, personnel involved).

8.3. Data Collection

- Collect statements from those involved in the incident and any witnesses. Written statements of those involved should be sought as soon as possible following an incident. After reviewing the statements, further questions may be developed;
- Conduct interviews with relevant persons and record all information relevant to the incident; and
- Develop People, Equipment, Environment, Methods of Work, and the Organisation (PEEMO) chart (see chart in *(insert company name)* Incident Report and Investigation Form), consider how People, Equipment, Environment, Methods of Work, and the Organisation may have had direct or indirect impacts on the event. Information and/or evidence may be gathered by reviewing the incident site, records (training, maintenance, minutes etc.), procedures, risk assessments, data, or by interviewing personnel.

All information gathered should be factual. Speculation, opinions and assumptions based on facts are not to be included in the information gathered.

8.4. Data Organisation and Analysis

- 8.4.1. Develop a time line and/or sequence of events. It is critical to establish the sequence of events leading up to the occurrence of the incident and immediately after the incident occurred. The level of detail will depend on the severity and complexity of the incident. This information is gathered by speaking with people who were either directly or indirectly involved. When constructing a sequence of events the critical information is who did what, when they did it, where did it occur and what else contributed to it occurring. A sequence of events should be written out.
- 8.4.2. Review PEEMO chart for failures – Why did the failures occur? What were the deficiencies or absent defenses? What did people do or not do, systems failures, decisions, training deficiencies etc. that allowed the incident to occur.
- 8.4.3. A root cause must be present in order for the incident to occur. If you can confidently say that the incident could have been prevented/or the likelihood drastically reduced but for this factor, then it is a root cause. There may be more than one root cause identified during an investigation.

8.4.4. All other factors are causal factors. Their presence or absence made the event more or less likely to occur, or more or less severe.

8.4.5. When analysing data ensure that the information is both valid and reliable.

- Valid means that the evidence is directly related to the investigation. Reliable means that the evidence would be the same no matter who or how the evidence / data was collected.

8.5. Recommendations and Report

All corrective and preventive actions should be based on the Hierarchy of Control (Appendix B) to ensure the most effective controls are being considered.

8.5.1. Actions should prevent the reoccurrence of the incident in both the short and long term. Short term actions are those that prevent the causes of an incident from remaining or developing further. They may include site communication or temporary barricades. Long term actions eliminate the causes of the incident and generally take longer to implement. These may include engineering controls, elimination of a hazard and capital projects.

Effective actions are those that:

- Eliminate the cause of the incident in a practical way;
- Are lasting and required minimal maintenance; and
- Are readily implemented.

8.5.2. Actions resulting from incidents shall be recorded in the Incident Register to ensure follow up and timely closeout.

8.5.3. The Incident Report shall be completed and the details entered into the Incident Register with at least one action assigned to each event.

8.5.4. A detailed report shall be required for significant events and will be coordinated by the *(insert title of relevant position e.g.: WHS Coordinator)*.

9. Management Review

All investigations shall be reviewed at their completion by the *(insert senior management position e.g. site manager)*.

10. Communication of Incidents

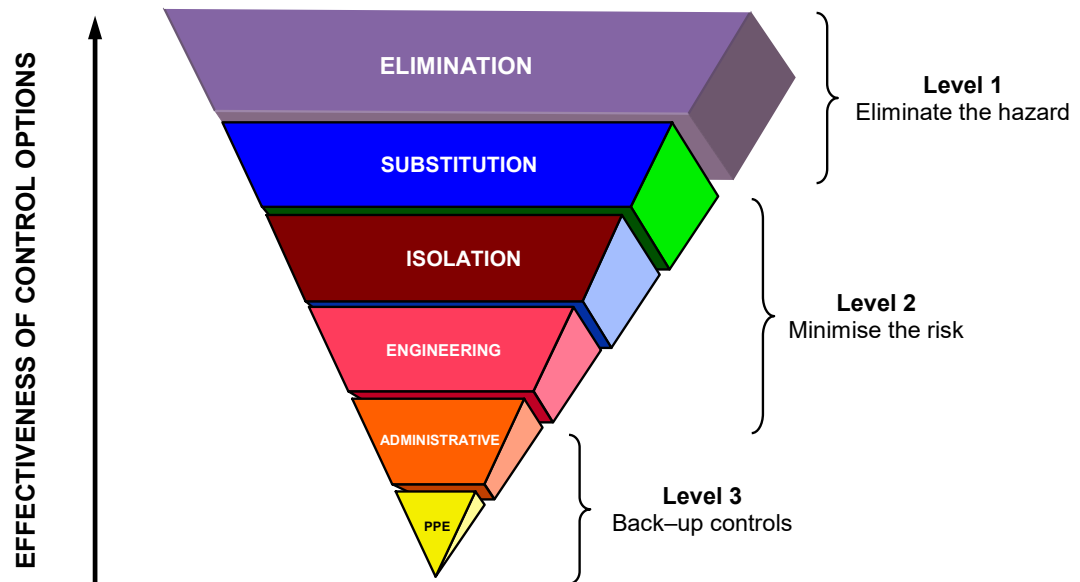
The findings of all incidents shall be communicated to all workers as soon as is practicable upon the completion of the incident investigation.

Appendix A: Risk Matrix

		Consequence				
		1 Minor	2 Moderate	3 Serious	4 Major	5 Catastrophic
Likelihood	A Almost Certain	10	16	20	23	25
	B Likely	7	12	17	21	24
	C Possible	4	8	13	19	22
	D Unlikely	2	5	9	14	18
	E Rare	1	3	6	11	15

Risk result	Rating	Definition	Level of involvement
Note when a potential consequence is classified as catastrophic, immediate and on-going intervention is required from the CEO to ensure control measures are adequate.			
19 - 25	Critical	Imperative to eliminate or reduce risk to a lower level by the introduction of controls.	CEO involvement
18 - 11	High	Corrective action required. Permitted activities.	Senior Management attention and sign off required
10 - 6	Moderate	Corrective action required. Job Hazard Analysis and Safe Work Procedure required to manage risk.	Supervisor attention required
5 - 1	Low	Corrective action where practical. Take 5 required.	Manage by routine procedures at operational level

Appendix B: Hierarchy of Control



11. Revision

This Procedure will be revised as required and at no later than two years from the date of last major revision.

Revision	Review / Edit Date	Reason for Review	By whom reviewed

Signed: _____
(insert senior management position e.g. site manager)

Date: _____

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

The South Australian Mining and Quarrying Occupational Health and Safety Committee

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Website: www.maqohsc.sa.gov.au

Insert Company Logo
Here

Incident Report and Investigation Form Template

Incident Type and Subtype: Please Tick

Incident Report No:

Category	Health / Safety <input type="checkbox"/>	Environment <input type="checkbox"/>	Community <input type="checkbox"/>	Quality (including Damage) <input type="checkbox"/>
			Complaint <input type="checkbox"/> Promotion <input type="checkbox"/>	Damage <input type="checkbox"/> Production Loss <input type="checkbox"/>
Sub Category	Injury <input type="checkbox"/> Near Miss <input type="checkbox"/> Security Breach <input type="checkbox"/> Isolation Breach <input type="checkbox"/> Theft <input type="checkbox"/>	Air <input type="checkbox"/> Water <input type="checkbox"/> Ground <input type="checkbox"/> Flora/Fauna <input type="checkbox"/> Cultural/Heritage <input type="checkbox"/> Fire <input type="checkbox"/>	Blasting <input type="checkbox"/> Noise <input type="checkbox"/> Odour <input type="checkbox"/> Lighting <input type="checkbox"/> Dust <input type="checkbox"/>	Light Vehicle <input type="checkbox"/> Mobile Equipment <input type="checkbox"/> Fixed Plant <input type="checkbox"/> Tools <input type="checkbox"/> Other <input type="checkbox"/>

Description of the Incident (add detailed incident description, drawings and photos as required)

Date of Incident: _____ Time: _____

Date Reported: _____ Time: _____ Reported to: _____

Incident Location: _____

Description of Incident: _____

Equipment Involved: _____

What was the task / activity being conducted at the time? _____

Immediate Action Taken: _____

Person(s) Involved

Name: _____ Date of Birth: _____

Employment type: Permanent ☐ Casual ☐ Labour Hire ☐ Other ☐ _____

Employer: _____ Employee No: _____

Contractor: Yes ☐ No ☐ Length of employment: _____ Years _____ Months

Name: _____ Date of Birth: _____

Employment type: Permanent ☐ Casual ☐ Labour Hire ☐ Other ☐ _____

Employer: _____ Employee No: _____

Contractor: Yes ☐ No ☐ Length of employment: _____ Years _____ Months

Witnesses: _____

Insert Company Logo
Here

Incident Report and Investigation Form Template

Was drug and alcohol testing conducted / required?

Yes ☐ No ☐

Personal Injury

Yes ☐ No ☐

Person 1 _____ Person 2 _____

Treatment: None ☐ First Aid ☐ Doctor / Hospital ☐

First Aid Given by: _____ Details: _____

Location of Injury:

Head / Face	<input type="checkbox"/>	Arm	<input type="checkbox"/>	Leg	<input type="checkbox"/>	Trunk	<input type="checkbox"/>	Back / Neck	<input type="checkbox"/>
Eye	<input type="checkbox"/>	Shoulder	<input type="checkbox"/>	Thigh	<input type="checkbox"/>	Collar bone	<input type="checkbox"/>	Neck	<input type="checkbox"/>
Nose	<input type="checkbox"/>	Upper arm	<input type="checkbox"/>	Knee	<input type="checkbox"/>	Ribs	<input type="checkbox"/>	Upper back	<input type="checkbox"/>
Mouth	<input type="checkbox"/>	Elbow	<input type="checkbox"/>	Shin	<input type="checkbox"/>	Sternum	<input type="checkbox"/>	Middle back	<input type="checkbox"/>
Teeth	<input type="checkbox"/>	Fore arm	<input type="checkbox"/>	Calf	<input type="checkbox"/>	Internal organs	<input type="checkbox"/>	Lower back	<input type="checkbox"/>
Ear	<input type="checkbox"/>	Hand	<input type="checkbox"/>	Ankle	<input type="checkbox"/>	Lower abdomen	<input type="checkbox"/>	Spine	<input type="checkbox"/>
Cheek	<input type="checkbox"/>	Finger(s)	<input type="checkbox"/>	Foot	<input type="checkbox"/>	Hips	<input type="checkbox"/>		
Chin	<input type="checkbox"/>	Thumb	<input type="checkbox"/>	Toe(s)	<input type="checkbox"/>	Groin	<input type="checkbox"/>		
Fore head	<input type="checkbox"/>	Palm	<input type="checkbox"/>						
Top of head	<input type="checkbox"/>								
Back of head	<input type="checkbox"/>								
Other: _____									

Nature of injury:

Laceration	<input type="checkbox"/>	Amputation	<input type="checkbox"/>	Fracture	<input type="checkbox"/>	Dislocation	<input type="checkbox"/>	Spinal injury	<input type="checkbox"/>
Bruise	<input type="checkbox"/>	Sprain / strain	<input type="checkbox"/>	Poison	<input type="checkbox"/>	Foreign body	<input type="checkbox"/>	Head injury	<input type="checkbox"/>
Burn	<input type="checkbox"/>	Exposure	<input type="checkbox"/>	Open wound	<input type="checkbox"/>	Nerve damage	<input type="checkbox"/>	Internal injury	<input type="checkbox"/>
Other: _____									

Mechanism of injury:

Fall from height	<input type="checkbox"/>	Fall same level	<input type="checkbox"/>	Hit object with body part	<input type="checkbox"/>	Hit by moving object	<input type="checkbox"/>
Repetitive movement	<input type="checkbox"/>	Mucular stressors	<input type="checkbox"/>	Contact with electricity	<input type="checkbox"/>	Vehicle accident	<input type="checkbox"/>
Exposure to heat / cold	<input type="checkbox"/>	Contact with Chemical	<input type="checkbox"/>	Slip, trip	<input type="checkbox"/>	Bites, stings	<input type="checkbox"/>
Vibration	<input type="checkbox"/>	Noise exposure	<input type="checkbox"/>	Radiation exposure	<input type="checkbox"/>	Biological	<input type="checkbox"/>
Contact with moving part	<input type="checkbox"/>	Mental stressors	<input type="checkbox"/>				
Other: _____							

Similar injury suffered previously?

Yes ☐ No ☐

If Yes, when? _____ Treatment provided: _____

Returned to normal duties? Yes ☐ No ☐ Alternative duties: _____

Incident Report and Investigation Form Template

Ranking

Actual outcome:	Near Miss <input type="checkbox"/> Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Serious <input type="checkbox"/> Major <input type="checkbox"/> Catastrophic <input type="checkbox"/>
Potential Consequence:	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Serious <input type="checkbox"/> Major <input type="checkbox"/> Catastrophic <input type="checkbox"/>
Likelihood	Rare <input type="checkbox"/> Unlikely <input type="checkbox"/> Possible <input type="checkbox"/> Likely <input type="checkbox"/> Certain <input type="checkbox"/>

Risk Matrix Legends

Rating	Safety	Health	Environment
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
2 Moderate	Medically treated injury. Reversible injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but does not lead to restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence Incident resulting in some site contamination. Medium term recovery impact.
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.
5 Catastrophic	Fatality. Permanent disabling injuries	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences

Descriptor	Description	Suggested Frequency
Almost certain	The event is expected to occur	Recurring event during the lifetime of a project / operation e.g. More than once per month
Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project / operation e.g. At least once per year
Possible	The event should occur	Event that may occur during the lifetime of a project / operation e.g. Once in 3 years
Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project / operation e.g. Once in 10 years
Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project / operation e.g. Once in 15 years



Incident Report and Investigation Form Template

Regulatory Notification Requirement	Yes <input type="checkbox"/> No <input type="checkbox"/>
-------------------------------------	--

Regulatory Body:	SafeWork SA <input type="checkbox"/> Dept. State Development (DSD) <input type="checkbox"/> Environment Protection Authority (EPA) <input type="checkbox"/>
	Office of the Technical Regulator (Electrical) <input type="checkbox"/>

Date Reported: ____/____/____ Time: _____ Reported by: _____

Person reported to (Name): _____

Information Provided: _____

Information Requested: _____

Instructions given by Regulator: _____

Incident Report and Investigation Form Template

Investigation Team Members		
Name:	Role:	Signature:

Incident Analysis		
System Factor	In Place	Absent / Failed / Inadequate
People: (check training records and competency, review previous incidents) (following instruction, fitness for work, attitude, complacency, inexperienced, rushing, risk assessment conducted prior to commencing task)		
Environment (check surroundings, access, egress, hostile environment, work space, housekeeping, noise, dust, confined areas, weather, poor visibility, task unfamiliarity, uneven ground, wildlife)		
Equipment and Materials (check chemicals, tooling and equipment) (check suitability, fit for purpose, approved for site use, design, modifications, suitability, condition, guarding, maintenance records)		
Methods of Work (check procedures, permits, training, instructions, Take 5, Job Hazard Analysis, risk assessments, licences)		
Organisation (check systems of work, training provided, supervision, communications, instructions given, personal protective equipment provided, culture, pressures)		

Incident Report and Investigation Form Template

Failures:		Why?
1.		
2.		
3.		
4.		
5.		
6.		
7.		

Recommendations to prevent recurrence:				
No.	Action Description	By Whom	By When	Hierarchy of Control (Elimination, Substitution, Engineering, Isolation, Administration, Personal Protective Equipment)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Insert Company Logo
Here

Incident Report and Investigation Form Template

Incident review and sign off:			
Role:	Name:	Signature:	Date:
Person/s involved			
Immediate Supervisor			
Area Manager			
Health and Safety Representative			
Health and Safety Committee			
Work Health and Safety Manager / Coordinator			
Quarry / Mine Manager			

Evaluation:	Comment:	Conducted by:	Date:
<i>(to be conducted 3 months after incident occurrence)</i>			
Have all corrective actions been implemented?			
Has the incident and corrective actions been communicated to personnel and key stakeholders?			
Have any similar incidents or near misses occurred?			
Do the implemented controls appear to be effective?			

Incident Reporting Checklist

Following an incident the **Supervisor or Senior Site person** present should where necessary initiate the following actions in accordance with the classification level of the incident:

Nature of the incident:		Date:	
Location of the incident:		Number of persons involved:	

	Supervisor Actions	Initial	Time
1.	Stop the task/s immediately		
2.	Ensure the area is safe		
3.	Ensure welfare of injured person/s		
4.	Restrict access to the area		
5.	Notify the Leadership Team as detailed on this form (pg. 2)		
6.	Preserve the incident scene to retain valuable information for investigative purposes: <ul style="list-style-type: none"> ▪ Take photos ▪ Barricade the area ▪ Ensure perishable evidence is preserved 		
7.	Carry out a preliminary assessment of the incident level		
8.	Determine the necessary level of the investigation		
9.	Arrange for Fitness For Work Test of all personnel involved (if required): Worker Name: _____ Worker Name: _____		
10.	Identify all persons who may have information about the incident and gather the following documentation: <ul style="list-style-type: none"> ▪ Witness Statements ▪ Take 5, Job Safety Analysis, Pre Start Inspections, Maintenance Records ▪ Photos ▪ Incident Report Form to be completed (prior to the end of shift) 		
11.	Within 24 Hours of the Incident Incident details to be entered into (insert company name) incident register		

Incident Reporting Checklist

	Notifications to Leadership Team	Time	Contacted (Y/N)
1.	On-Shift Supervisor to contact <i>(insert senior management position e.g. site manager)</i> as soon as possible.		
2.	On-Shift Supervisor to contact Work Health and Safety Coordinator and notify of incident as soon as possible.		
3.	<i>(insert senior management position e.g. site manager)</i> to contact relevant regulatory body as soon as possible (if required).		

Contact Details	
<i>(insert senior management position e.g. site manager)</i>	XXXX XXX XXX
Work Health and Safety Coordinator	XXXX XXX XXX
Ambulance	000
Fire	000
SafeWork SA	1800 777 209
Office of the Technical Regulator - Electrical	(08) 8226 5518 1800 558 811 A/H
Office of the Technical Regulator - Gas Leaks	1800 427 532
EPA South Australia	(08) 8204 2004 1800 623 445
Others	

Work shall only resume after relevant evidence has been collected and suitable controls have been instated to ensure that there is no further risk to Personnel, Equipment and / or the Environment and approval from the *(insert senior management position e.g. site manager)* is given.

Supervisors Name:

Signature

A copy of this form shall be retained with all other evidence and documentation relating to the incident

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

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Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Level 2, Torrens Building

220 Victoria Square

Adelaide SA 5000

Phone: (08) 8204 9842

Email: maqohsc@sa.gov.au

Website: www.maqohsc.sa.gov.au

Incident: _____ **Incident Date:** _____

Location: _____ **Interview Date:** _____

[illegible]

Please summarise the incident sequence from start to finish.

TIME	EVENT	TIME	EVENT
<i>EXAMPLE 1615hrs</i>	<i>Conducted Pre Start on Loader 01</i>		

Did you note anything unusual you observed prior to or during the incident? (sights, sounds, smells, etc.)

What was your role in the incident sequence?

What conditions influenced the incident? (weather, time of day, equipment malfunctions, etc.)

Additional comments / observations:

I declare that the above statement is true and accurate.

Witness Name: _____ Date: _____

Signature: _____

Interviewer Name: _____ Date: _____

Interviewer
Signature: _____ Position Held: _____

Incident Register Template

This Incident Register is to be used to record a summary of all incidents that have occurred within *(insert company name)*. The information documented, will be used to plan strategies for managing identified risks.

The Incident Register shall provide an overview of the following:

- Incident report identifier, such as a number;
- A brief description of the incident;
- The date and time of the incident;
- If the incident is a notifiable occurrence;
- The location of the incident, such as in the quarry pit, workshop, etc;
- The name/s of any persons involved in the incident;
- Brief details of injuries sustained;
- Brief details of any damage to equipment;
- Brief details of any loss to production;
- The incident classification, such as a MTI or Near Miss, etc.;
- The name of the person that reported the incident;
- The details of corrective actions;
- The name of the person responsible for the corrective actions;
- The target date for any corrective actions;
- The date corrective actions are completed; and
- The details of any reviews conducted of the incident and corrective actions, such as by the Health and Safety Committee.

Definitions

FAI - First Aid Injury, a minor injury that only requires first aid treatment.

MTI - Medical Treatment Injury, an injury that requires medical intervention such as:

- Immediate treatment as an in-patient in a hospital;
- Treatment for the amputation of any part of the body;
- Treatment for a serious head injury;
- Treatment for a serious eye injury;
- Treatment for a serious burn;
- Treatment for the separation of skin from the underlying tissue (degloving or scalping);
- Treatment for a spinal injury;
- Treatment for the loss of a body function;
- Treatment for a serious laceration, such as stitches; and
- Medical treatment within 48 hours of exposure to a substance.

Note: Medical Treatment Injuries are a notifiable occurrence.

RWI - Restricted Work Injury, an injury that results in the worker being assigned to another task on a temporary basis or where the worker worked at a permanent job less than full time or where the worker worked at their permanent assigned task but could not perform all the duties required.

A Restricted Work Injury occurs when a worker, because of a work related injury, is physically or mentally unable to perform all or part of their normal assignment during all or any part of the normal work day or shift.

LTI - Lost Time Injury, an injury that results in the worker being away from work for one or more days, not including the day of the injury.

ED - Equipment Damage, an incident that results in damage to vehicles, plant, equipment, buildings, etc.

PL - Production Loss, an incident that results in the loss of production.

NM - Near Miss, an incident that did not result in an injury, damage loss, etc., but had the potential to.

ENV - Environmental, an incident that resulted in harm to the environment, such as a chemical / fuel spill, nuisance dust escaping, noise affecting neighbouring properties, etc.

SAFETY - Safety related incidents include incidents, such as failure to follow isolation procedures, a security breach of a perimeter fence and any other type of incident not listed above.

DI - Dangerous Incident, is an incident that exposes a worker or any other person to a serious risk to their health and safety from an immediate or imminent exposure to:

- An uncontrolled escape, spillage or leakage of a substance;
- An uncontrolled implosion, explosion or fire;
- An uncontrolled escape of gas or steam;
- An uncontrolled escape of pressurised substance;
- An electric shock;
- The release or fall from height of any plant, substance or thing;
- The collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with the *Work Health and Safety Regulations 2012* (SA);
- The collapse or partial collapse of a structure;
- The collapse or failure of an excavation or of any shoring supporting an excavation;
- The inrush of water, mud or gas in workings, in an underground excavation or tunnel;
- The interruption of the main system of ventilation in an underground excavation or tunnel; or
- The unplanned loss of control of heavy earthmoving machinery (including failure of braking or steering) at a mine.

Note: Dangerous Incidents are notifiable occurrences.

HPI - High Potential Incident, is an incident or event that would have been a dangerous incident if a person were in the vicinity at the time when the incident or event occurred and in usual circumstances a person could have been in that vicinity at that time.

Note: High Potential Incidents are notifiable occurrences.

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February 2020

(insert Company Name) INCIDENT REGISTER TEMPLATE

Incident Report Number	Brief description of the Incident	Date of Incident	Time of Incident	Is the Incident a Notifiable Occurrence	Date and Time Regulator Notified	Regulator Notified	Location of Incident	Name/s of worker/s involved	Details of any injuries	Details of treatment
1	Whilst cutting a seized roller on a conveyor, melted nylon dripped onto the fitters hand resulting in a minor burn to his right index finger.	23.03.2016	10.30am	No	N/A	N/A	Crushing Plant	Joe Bloggs	Minor burn to right index finger.	First aid treatment provided. Injured person transported to medical centre for assessment. No further treatment provided.
2	A D11 Dozer (DZ01) reversed over a light vehicle that had entered the work area of the dozer.	18.05.2016	1.20pm	Yes	18.05.2016 1.40pm	SafeWork SA	Quarry	Jane Smith	Nil	

Details of any equipment damage	Details of production loss	Incident Classification	Reported By	Corrective Actions	Responsible Person	Target Date	Completion Date	Incident Review (include name, title, and date)
Nil	Nil	FAI	John Doe Workshop Supervisor	1. Ensure correct cutting wheels for the cutting of rubber and plastics are sourced and purchased. 2. Ensure fitters are trained in the correct methods and equipment required for cutting of rubbers and plastics. 3. Ensure findings of incident are communicated to all personnel.	1. Workshop Manager 2. Workshop Manager 3. Work Health and Safety Coordinator	30.06.2016	25.06.2016	Name: Bob John Title: Director This person should hold the position within your highest level of governance i.e.Owner / Owners / Senior Management / Work Health and Safety Manager, etc.) Date: 18.09.16
The light vehicle was crushed by the dozer. The light vehicle was not repairable.	Nil	HPI	Mick O'Shea Quarry Supervisor	1. Review of the site Traffic Management Plan to be conducted to investigate opportunities to eliminate Light Vehicle and Heavy Vehicle interactions. 2. Ensure all personnel are retrained in communication procedures for entering Heavy Vehicle work areas. 3. Investigate options for the installation of collision avoidance technology. 4. Ensure findings of incident are communicated to all personnel.	1. Work Health and Safety Manager 2. Work Health and Safety Manager 3. Workshop Manager 4. Work Health and Safety Manager	01.08.2016	28.07.2016	



Government
of South Australia

SafeWork SA

MINING OPERATIONS: NOTIFIABLE INCIDENT AND MINING INCIDENT REPORT FORM

FOR REPORTING A SERIOUS INJURY OR ILLNESS, DANGEROUS INCIDENTS, HIGH POTENTIAL INCIDENTS AND MEDICAL TREATMENT UNDER THE *WORK HEALTH AND SAFETY ACT 2012 (SA)*

SafeWork SA

GPO Box 465
ADELAIDE SA 5001

Phone: 1300 365 255
Fax: 08 8204 9200

swsaheicohs@sa.gov.au

INSTRUCTIONS:

1. This form must only be used for **Mining Operations**.
2. It is the duty of the **Mine Operator** (as the Person Conducting a Business or Undertaking (PCBU)) to report incidents arising from mining operations.
3. This form should be completed accurately with as **much detail as is available**.
4. A separate form must be completed for each affected individual.
5. Send this form to SafeWork SA by email or fax.

DO NOT USE this form to report an immediately life threatening issue or the death of a person. Please call SafeWork SA on our emergency line - 1800 777 209. This service operates 24 hours a day, 7 days a week.

WHS SPECIFIC:

☐

SERIOUS INJURY OR ILLNESS

☐

DANGEROUS INCIDENT

MINING SPECIFIC:

☐

ILLNESS OR INJURY REQUIRING MEDICAL TREATMENT

☐

HIGH POTENTIAL INCIDENT

DETAILS OF INCIDENT

Date and Time of the incident:	Mine Site:	Specific Location:	
Mine Address:	Suburb:	State: Select	Post Code:
What work was being performed at the time of, or just before, the incident?			
Incident description:			
What plant, substances or processes were being used at the time?			
Apparent cause of the incident:			

INJURED PERSON

Name:	Occupation:	Work Experience: Select	
Address:	Suburb:	State: Select	Post Code:
Sex: Select	Date of Birth:	Phone Number:	Mobile Number/Other:
Illness or injuries (if known):		Condition of Person (if known): Select	
Immediate treatment location: Select	Was the person admitted to hospital? Select	Hospital name (if applicable):	
Date and time first reported (if illness):	Mechanism of incident?		
Consequences of incident: Select			
Nature of engagement of Injured Person:			
Usual start time:	Usual finish time:	Start time on day of incident:	Number of hours worked before incident:

MINE
OPERATOR

Business/Entity Name:		ABN/ACN:	
Address:	Suburb:	State: Select	Post Code:
Phone Number:	Fax Number:	Mobile Number:	Other Number:

Name:		Position:	Involvement/Relationship to the site: Select
Phone Number:	Mobile Number:	Email:	
IMPORTANT NOTICE (IF NOTIFIABLE INCIDENT) Pursuant to Section 39 of the <i>Work Health and Safety Act 2012</i> (SA), you are advised that the person with management or control of the workplace must ensure that the site or any plant, substance, structure or thing where the incident occurred is not disturbed, so far as is reasonably practicable, until an inspector arrives at the site or any earlier time that the inspector directs, unless it is required to assist an injured person, remove a deceased person, to make the area safe, or are directed by police.			
Date form completed:	Signed:	<input type="checkbox"/> I have submitted this form electronically (signature is not required)	

WHAT INCIDENTS NEED TO BE NOTIFIED TO SAFEWORK SA?

Work Health and Safety Act 2012 (SA)

Section 35 – notifiable incident

notifiable incident means—

- (a) the death of a person; or
- (b) a serious injury or illness of a person; or
- (c) a dangerous incident.

Regulation 675V – mining incident

incident means—

an incident (other than a notifiable incident) that:

- (a) results in illness or injury that requires medical treatment within the meaning of item 13.2 of Schedule 24; or
- (b) is a high potential incident.

WHAT IS A SERIOUS INJURY OR ILLNESS?

Work Health and Safety Act 2012 (SA)

Section 36 – What is a serious injury or illness

serious injury or illness of a person means an injury or illness requiring the person to have—

- (a) immediate treatment as an in-patient in a hospital; or
- (b) immediate treatment for—
 - (i) the amputation of any part of his or her body; or
 - (ii) a serious head injury; or
 - (iii) a serious eye injury; or
 - (iv) a serious burn; or
 - (v) the separation of his or her skin from an underlying tissue (such as degloving or scalping); or
 - (vi) a spinal injury; or
 - (vii) the loss of a bodily function; or
 - (viii) serious lacerations; or
- (c) medical treatment within 48 hours of exposure to a substance, and includes any other injury or illness prescribed by the regulations but does not include an illness or injury of a prescribed kind.

Work Health and Safety Regulations 2012 (SA)

Regulation 699 – Incident notification – prescribed serious illnesses

For the purposes of section 36 of the Act, each of the following conditions is a serious illness:

- (a) any infection to which the carrying out of work is a significant contributing factor, including any infection that is reliably attributable to carrying out work –
 - (i) with micro-organisms; or
 - (ii) that involves providing treatment or care to a person; or
 - (iii) that involves contact with human blood or body substances; or
 - (iv) that involves handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products;
- (b) the following occupational zoonoses contracted in the course of work involving handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products:
 - (i) Q fever;
 - (ii) Anthrax;
 - (iii) Leptospirosis;
 - (iv) Brucellosis;
 - (v) Hendra Virus;
 - (vi) Avian Influenza;
 - (vii) Psittacosis.

WHAT IS A DANGEROUS INCIDENT?

Work Health and Safety Act 2012 (SA)

Section 37 – What is a dangerous incident

dangerous incident means an incident in relation to a workplace that exposes a worker or any other person to a serious risk to a person's health or safety emanating from an immediate or imminent exposure to—

- (a) an uncontrolled escape, spillage or leakage of a substance; or
- (b) an uncontrolled implosion, explosion or fire; or
- (c) an uncontrolled escape of gas or steam; or
- (d) an uncontrolled escape of a pressurised substance; or
- (e) electric shock; or
- (f) the fall or release from a height of any plant, substance or thing; or
- (g) the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with the regulations; or
- (h) the collapse or partial collapse of a structure; or
- (i) the collapse or failure of an excavation or of any shoring supporting an excavation; or
- (j) the inrush of water, mud or gas in workings, in an underground excavation or tunnel; or
- (k) the interruption of the main system of ventilation in an underground excavation or tunnel; or
- (l) any other event prescribed by the regulations, (Regulation 699A)

WHAT IS A PRESCRIBED DANGEROUS INCIDENT?

Work Health and Safety Regulations 2012 (SA)

Regulation 699A – Incident notification – prescribed dangerous incident

For the purposes of section 37 of the Act the unplanned loss of control of heavy earthmoving machinery (including failure of braking or steering) at a mine is a dangerous incident.

WHAT IS MEDICAL TREATMENT?

Work Health and Safety Act 2012 (SA)

Schedule 24 – What is medical treatment

medical treatment means—

the management or care of a patient including:

- (a) the suturing of a wound;
 - (b) the treatment of fractures;
 - (c) the treatment of bruises by drainage of blood;
 - (d) the treatment of second and third degree burns,
- but does not include diagnostic procedures, observation, counselling, first aid or therapeutic measures taken solely for preventative purposes.

WHAT IS A HIGH POTENTIAL INCIDENT?

Work Health and Safety Act 2012 (SA)

Regulation 675V – What is a high potential incident

high potential incident means—

an incident or event referred to in section 37(a) to (l) of the Act that would have been a dangerous incident under section 37 if a person were in the vicinity at the time when the incident or event occurred and in usual circumstances a person could have been in that vicinity at that time;

ELECTRICAL INCIDENTS

If the incident being notified is related to **an electric shock, gas infrastructure, or gas fitting** also please call the **Office of the Technical Regulator** (OTR) on: **1800 558 811**

for the Office of the Technical Regulator



INVESTIGATORS — <i>Name</i>											
Electrical Workers Reg No				Phone No				Fax No			
Employer											
Address											
Date/s of investigation				Person compiling report							
Signature				Title			Date				
OTR USE	Voltage measured between the surfaces contacted which caused the shock current to pass to the victim.										
1. on arrival			volts with a			kW / Amps load (1 phase) in the neutral/earth conductor					
2. after remedy			volts with a			kW / Amps load (1 phase) in the neutral/earth conductor					

Please forward to: Office of the Technical Regulator, GPO Box 320 ADELAIDE SA 5001
Facsimile (08) 8226 5529 Email: otrmail@sa.gov.au Phone: (08) 8226 5518 Business Hours (1800 558 811 After Hrs)

CODE REFERENCES Please tick only one answer in each of the 4 sections

1. LOCATION		Tick one
L1	HOME	
L2	WORKPLACE	

2. VICTIM		Tick one
V1	SUPPLY INDUSTRY WORKER	
V2	ELECTRICAL WORKER – LICENSED	
V3	NON ELECTRICAL WORKER – OTHER TRADE	
V4	GENERAL PUBLIC	

3. CAUSE		Tick one
C1	FAILURE / DETERIORATION	
C2	MISUSE / INTERFERENCE - DELIBERATE	
C3	MISUSE / INTERFERENCE - ACCIDENT	
C4	ELECTRICAL WORKER – WORK PRACTICE	
C5	OTHER	

4. INSTALLATION		Tick one
ELECTRICITY DISTRIBUTOR		
Da	OVERHEAD LINE – FIXED	
Db	OVERHEAD – FALLEN	
Dc	UNDERGROUND LINE – FIXED	
Dd	SUBSTATION	
De1	CONSUMERS SERVICE – OVERHEAD FIXED	
De2	CONSUMERS SERVICE – OVERHEAD FALLEN	
De3	CONSUMERS SERVICE - UNDERGROUND	
Df	OTHER	
CONSUMER INSTALLATION		
Cla	INSTALLATION WIRING	
Cib	FIXED EQUIPMENT	
Cic	OTHER	
CONSUMER EQUIPMENT		
CEa	FLEXIBLE CORDS & ACCESSORIES	
CEb	APPLIANCES / PLUG IN EQUIPMENT / LAMP	
CEc	OTHER	
OTHER		
Oa	GENERATORS / INVERTERS	
Ob	OTHER	

5. SAFETY PROTECTION		Tick one
S1	RCD PROTECTION PROVIDED	
S2	RCD PROTECTION COULD HAVE REDUCED THE EFFECTS OF THE ELECTRIC SHOCK	
S3	OTHER	

OTR USE ONLY

Checked by		Date		Entered into sparky		C
CODE	L	V	C	D/C/O	S	

Please forward to: **Office of the Technical Regulator**, GPO Box 320 ADELAIDE SA 5001
Facsimile (08) 8226 5529 Email: otrmal@sa.gov.au Phone: (08) 8226 5518 Business Hours (1800 558 811 After Hrs)

Please answer the following questions:

1. When did the injured person start the activity and/or join the project?
2. What was the injured person's responsibility on this project?
3. What was the injured person doing?
4. Who had assigned the injured person to the task?
5. Who had instructed the injured person & what instruction was given?
6. What tools, machinery, plant or equipment were being used?
7. What did the injured person and/or any witnesses see that was unsafe?
8. When was something first observed to be wrong & who was notified?
9. Who authorised and energised the device which caused the electric shock?
10. Who witnessed the accident, events leading up to the accident, or was working with the injured person? (e.g. workmates, other contractors, clients etc.)
11. Why was the item not de-energised, shutdown completely or otherwise made safe?
12. Why did the injury occur?
13. When did the supervisor last see the injured person, & was the supervisor notified when things started to go wrong?
14. What action has been taken to prevent any recurrence?
15. What other near misses or similar accidents have occurred?
16. What safety rules, regulations or work practices apply to the task being performed?
17. How would the injured person have known that the item was "live" or "dangerous"?
18. Was personal protective equipment (PPE) provided? and used?
19. What PPE was used?

Please forward to: Office of the Technical Regulator, GPO Box 320 ADELAIDE SA 5001
Facsimile (08) 8226 5529 Email: otrmal@sa.gov.au Phone: (08) 8226 5518 Business Hours (1800 558 811 After Hrs)

FOR YOUR INFORMATION

Extract from the *Electricity Act 1996*

63—Reporting of accidents

- (1) If an accident happens that involves electric shock or electrical burns caused by the operation or condition of electricity infrastructure or an electrical installation—
 - (a) the accident must be reported as required under the regulations—
 - (i) if the accident involves part of an electricity entity's infrastructure—by the electricity entity; or
 - (ii) if the accident happens while an electrical worker is working on an electrical installation and the electrical worker is able to make the report—by the electrical worker; or
 - (iii) in any other case—by the occupier of the place in which the accident happens; and
 - (b) the infrastructure or installation must not be altered or interfered with unnecessarily by any person so as to prevent a proper investigation of the accident.

Maximum penalty: \$2 500.

Expiation fee: \$210.

Extract from the *Electricity (General) Regulations 2012*

Division 4—Reporting and investigation of accidents

70—Reporting of accidents

- (1) For the purposes of section 63 of the Act, a report must be made to the Technical Regulator of the details of the accident—
 - (a) in the case of a death resulting from the accident—immediately by telephone;
 - (b) in the case of a person requiring medical assistance resulting from the accident—within 1 working day of the accident;
 - (c) in any other case—within 10 working days of the accident.
- (2) An electricity entity or person who is required to report an accident in accordance with section 63 of the Act must provide the Technical Regulator with such further details of the accident as the Technical Regulator reasonably requires.
- (3) An electricity entity that operates a transmission or distribution network must—
 - (a) promptly investigate any accident that involves electric shock or electrical burns that may have been caused by the operation or condition of the transmission or distribution network or an electrical installation connected to the network and report the results of the investigation to the Technical Regulator in the form, and containing the details, required by the Technical Regulator; and
 - (b) comply with any direction given by the Technical Regulator relating to the investigation of an accident to which section 63 of the Act relates, including a direction to conduct such examinations and tests as are required by the Technical Regulator.
- (4) If in the course of an investigation under subregulation (3) it is determined that the electric shock or electrical burns were caused by an electrical installation connected to the network, the electricity entity must report that result to the Technical Regulator and need not proceed further with the investigation.



Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Workplace Inspections Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Workplace Inspections Guide

AIM

The aim of this Guidance Material is to provide Persons Conducting a Business or Undertaking (PCBUs) with practical guidance on workplace inspections.

1. Introduction

Workplace inspections are an essential tool used to enhance a positive safety culture through educating people in identifying hazards and taking action to correct / rectify them to maintain a safe workplace.

Workplace inspections are an assessment of the workplace or area of plant to identify unsafe conditions, hazards and compliance to legislation, procedures / permits, conditions / work processes or operational safety related matters.

A well-managed inspection program will assist you to:

- Identify potential Work Health and Safety issues
- Identify defects in equipment;
- Identify inadequate work practices;
- Identify the effects of changes;
- Meet legislative compliance;
- Conduct reviews of implemented risk control measures; and
- Show commitment through involvement.

2. Legislative requirements

The *Work Health and Safety Regulations 2012* (SA), Chapter 10 Mines, Part 2 Managing Risks, Regulation 622p states that the safety management system for the mine must set out the arrangements in place for all monitoring and assessment and regular inspection of the working environment of the mine to be carried out for the purpose of the Act.

3. Responsibilities

3.1. Management

Management is responsible for:

- Ensuring resources, guidance and direction for establishing and implementing a workplace inspection program are provided;
- Ensuring that the site is divided into areas that suitably cover all work places according to the levels of risk;

- Ensuring that a schedule of workplace inspections, based on identified risk is developed;
- Ensuring that all personnel are provided with information, training and instruction in workplace inspections;
- Ensuring that identified hazards are reported and communicated to all workers;
- Ensuring that actions are identified, assigned and implemented to address the hazards identified through the inspections;
- Monitoring the implementation and outcomes of the inspection program; and
- Ensuring that records of workplace inspections are maintained.

3.2. Inspection Team

The inspection team is responsible for:

- Carrying out the inspection;
- Nominating a team leader;
- Ensuring that all necessary resources for conducting the inspection are obtained, (inspection checklist, camera, appropriate personal protective equipment, etc);
- Completing a record of the workplace inspection; and
- Providing feedback on the workplace inspection and associated actions.

3.3. Supervisors

Supervisors are responsible for:

- Assisting in the development, implementation, monitoring and review of workplace inspections;
- Participating in workplace inspections as required;
- Ensuring findings of workplace inspections are communicated to their workgroup;
- Ensuring workers are provided to participate in workplace inspections;
- Ensuring assigned actions are implemented.

3.4. Workers

Workers are responsible for:

- Participating in workplace inspections as requested or assigned;
- Immediately controlling identified hazards within their level of control;
- Reporting hazards identified; and
- Assisting in the identification of corrective actions.

4. Types and Frequency of Workplace Inspections

The types and frequencies of workplace inspections will depend on your type of operation and the risks associated with that operation.

Below is an example of the possible types and frequencies of workplace inspections.

4.1. Regulatory Inspections

There are a number of workplace inspections that are required to be conducted as part of your regulatory compliance.

Equipment subject to these inspections can present a higher risk of harm to personnel and your operations if not properly inspected and maintained.

Regulatory Inspections include:

- Electrical testing and residual current device (RCD) inspection;
- Fire Equipment (suppression systems, alarms, extinguishers, hose reels, etc);
- Pressure vessels;
- Lifting equipment;
- Working at Heights equipment;
- Gas cylinders; and
- First aid equipment (first aid kits, rooms, vehicles, etc).

Note: *First aid equipment like non-plumbed eyewash stations (eyewash stations that have stored water) shall need to be included in regular inspections to ensure the storage tanks are drained, cleaned, refilled and an anti-bacterial agent added every three months. For items such as first aid kits, you may also choose to engage an external provider to inspect and replenish first aid kits on a regular basis.*

Regulatory inspections need to be conducted by “competent persons”, those with the appropriate training, experience or knowledge; this particularly applies to inspections of lifting equipment, working at heights equipment, pressure vessels and gas cylinders.

See appendix A for a list of relevant standards and inspection frequencies for regulatory inspections.

Note: *Some regulatory inspection frequencies will depend on the operating conditions the equipment is used in. For example electrical equipment that is operated in harsh environments (underground, quarry pits, etc) will require more frequent testing than electrical equipment that is used in an office environment.*

4.2. Daily Inspections

Daily workplace inspections may include:

- Plant and equipment pre-start inspections;
- Pit and wall inspections; and
- Inspection of contractor work activities.

4.3. Weekly Inspections

Weekly workplace inspections may include:

- Management site inspection; and
- General housekeeping.

4.4. Monthly Inspections

Monthly Workplace inspections may include:

- Workshop inspection;
- Office / Administration inspection;
- Plant inspections (crushing plant, conveyors, processing facilities, etc);
- Stockpiles;
- Haul roads;
- Traffic management signage;
- Ladders;
- Eye wash and emergency showers;
- Monitoring and emergency equipment (gas monitors, first aid rooms / kits, breathing apparatus, etc); and
- Hot work areas.

4.5. Quarterly Inspections

Quarterly inspections may include:

- Lifting and working at heights equipment;
- Emergency equipment (fire extinguishers and hoses); and
- Electrical testing and tagging.

The above lists are not exhaustive and are provided as a guide only. In consultation with your workers you will need to identify all potential areas / items that will require regular scheduled inspections and determine an appropriate frequency of the inspections according to the risk levels and regulatory requirements.

Note: MAQOHSC has a number of workplace inspection templates available for download from the MAQOHSC website.

5. Training

All workers (inclusive of contractors) will need to be provided with training and instruction, to enable them to sufficiently perform a workplace inspection.

The training and instruction shall include:

- The aim of the workplace inspections;
- Relevant procedures;

- Hazard identification techniques; and
- Basic risk assessment.

Training and instruction for workplace inspections can be incorporated into your site induction or provided as on-the-job training.

As with all workplace training, records of the training and instruction shall be required to be recorded and maintained in your sites training matrix and workers training files.

6. Conducting Workplace Inspections

All persons taking part in workplace inspections should have been provided training and instruction in basic risk management principles (hazard identification and risk management).

The inspection team should comprise of at least two to three persons from varying areas of the operation, for example:

- A member of the management team (only for management inspections);
- A worker from the area being inspected;
- A health and safety representative (HSR) (if in place); and
- A worker external to the area.

In addition the area supervisor should be present for the inspection.

The inspection team should be provided with the inspection checklist and discuss the areas to inspect, time allocated for inspection, the nominated person to document and report the findings. A review of previous inspections for the area being inspected should be completed to check for any issues that may still be present.

When conducting the inspection, it is always beneficial to have “fresh eyes” in the inspection team. Someone that is new or unfamiliar to the area is more likely to identify new hazards.

The inspection team should take time to review the inspection checklist prior to commencing the inspection to ensure that the team has a clear understanding of what is being inspected.

7. Reporting and monitoring

At the conclusion of the inspection the documented findings of the inspection will need to be recorded in your site’s hazard and risk register with corrective actions assigned to address the identified areas of concern.

Regular monitoring of the corrective actions shall be required to ensure actions are closed out within the set time frames.

8. Communication

It is a requirement that the findings of any workplace inspection are communicated to the workgroup, inclusive of the hazards identified, actions assigned to control the risks, any temporary control measures implemented and the expected timeframe for the completion of the assigned actions.

Communication of the workplace inspection may occur through:

- Toolbox meetings;
- Pre-shift meetings;
- Safety alerts / memos; or
- The Health and Safety Committee.

Appendix A: Workplace Inspection Schedule example

Regulatory		
Inspection	Applicable standard	Frequency
Electrical testing and residual current device (RCD)	AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment	Dependent upon circumstance. Varies from daily – 5 yearly
Fire equipment	AS 1851:2012 Routine service of fire protection systems and equipment	Dependent upon system / equipment Varies from monthly – 30 yearly
Pressure vessels	AS/NZS 3788:2006 Pressure equipment—In-service inspection	Varies from commissioning – 12 yearly
Lifting Equipment (chains and slings)	AS 1353.2:1997 Flat synthetic-webbing slings Part 2: Care and use	Aside from pre-use inspections, at intervals not more than 3 months, in severe conditions more frequently and testing at intervals not exceeding 12 months.
	AS 1438.2:1998 Wire-coil flat slings Part 2: Care and use	Aside from pre-use inspections, at intervals not more than 12 months, in severe conditions more frequently.
	AS 1666.2:2009 Wire-rope slings Part 2: Care and use	Aside from pre-use inspections, periodic inspections shall be appropriate to the degree of utilization and working

		environment.
	AS 3775.2:2014 Chain slings for lifting purposes Grade T(80) and V(100) Part 2: Care and use	Aside from pre-use inspections, periodic inspection shall be conducted dependent upon the number of lift cycles per week, varying from monthly – 12 monthly inspections.
Working at Heights equipment	AS 1891.4:2009 Industrial fall-arrest systems and Devices Part 4: Selection, use and maintenance	Aside from pre and post use inspections, periodic inspections vary from 3 monthly – 5 yearly dependent upon the environment the equipment is used in and the type of equipment.
	AS 1892.5:2000 Portable ladders Part 5: Selection, safe use and care	Aside from pre-use inspections, periodic inspections shall be conducted.
Daily		
Inspection	Inspection to be conducted by	Checklist required
Mine / Quarry	Mine / Quarry Manager	Mine Quarry Managers daily inspection
Fixed Plant Pre-start	Fixed Plant operator	Fixed Plant Pre-start inspection
Mobile Plant Pre-start	Mobile Plant operator	Mobile Plant Pre-start inspection
Contractor works	Supervisor	Contractor works inspection
Weekly		
Traffic Management Controls (Haul Roads, Ramps, Windrows, conditions) etc.	Supervisor Health and Safety Representative	Traffic Management
Monthly		
Workshop Area	Workshop Supervisor Health and Safety Representative Fitter	Workshop Area inspection
Crushing Plant	Quarry Supervisor Crusher operator	Crusher Area inspection

	Health and Safety Representative	
Emergency and Monitoring equipment	Health and Safety Representative First Aider	
Quarterly		
Lifting and Working at Heights Equipment	Fitter Health and Safety Representative	Lifting Equipment Register, Working At Heights Equipment Register

Note: *The above list is not exhaustive and is used as an example only.*

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au or call 1300 551 832

REFERENCES

Work Health and Safety Regulations 2012 (SA)

AS/NZS 3760:2010 - In-service safety inspection and testing of electrical equipment

AS 1851:2012 - Routine service of fire protection systems and equipment

AS/NZS 3788:2006 - Pressure equipment—In-service inspection

AS 1353.2:1997 - Flat synthetic-webbing slings Part 2: Care and use

AS 1438.2:1998 - Wire-coil flat slings Part 2: Care and use

AS 1666.2:2009 - Wire-rope slings Part 2: Care and use

AS 3775.2:2014 - Chain slings for lifting purposes Grade T(80) and V(100) Part 2: Care and use

AS 1891.4:2009 - Industrial fall-arrest systems and Devices Part 4: Selection, use and maintenance

AS 1892.5:2000 - Portable ladders Part 5: Selection, safe use and care

Mining and Quarrying
Occupational Health and
Safety Committee
Level 2, Torrens Building
220 Victoria Square
Adelaide SA 5000

Telephone (08) 8204 9842
www.maqohsc.sa.gov.au



Insert Company Logo
Here

Mobile Crushing Plant Inspection Checklist

Inspectors Name:	<input style="width: 90%;" type="text"/>	Assistant 1	<input style="width: 90%;" type="text"/>	Assistant 2	<input style="width: 90%;" type="text"/>
------------------	--	-------------	--	-------------	--

Crushing Plants:	<input style="width: 90%;" type="text"/>	Site	<input style="width: 90%;" type="text"/>	Date	<input style="width: 90%;" type="text"/>	Time	<input style="width: 90%;" type="text"/>
------------------	--	------	--	------	--	------	--

Instructions for personnel completing this inspection;

- It is recommended this inspection be completed monthly.
- It is recommended a minimum of 2 persons conduct the inspection, one should be a health and safety representative of the work group (if present at the worksite) or a person qualified or experienced in Work Health and Safety and the other, a member of the workgroup,
- Complete the checklist below by ticking / marking the applicable score (Y, N, N/A) for each item.
- Complete details of non-conformances identified in the space provided.
- Assign a risk score for each non-conformance using the matrix below.
- Complete details including: Name, Date and signature in the space provided.
- Return the completed form to the *(insert role or dept., e.g. Area Manager, Safety Dept., etc.)* for corrective actions to be assigned.

RISK MATRIX

Likelihood	Consequences				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A - Almost Certain	M	H	E	E	E
B - Likely	M	H	H	E	E
C - Possible	L	M	H	H	E
D - Unlikely	L	L	M	H	H
E - Rare	L	L	M	H	H

HIERARCHY OF CONTROL

The Hierarchy of Control **must** be used when determining how risks are going to be Eliminated or Minimised.

Start at **No. 1** and work down the order.

- Elimination** – remove the hazard from the workplace
- Substitution** – use a different (safer) process, machine or chemical
- Isolation** - as much as possible, isolate the hazard or hazardous work practice from people.
- Engineering** – install guards on machines, put in barriers around hazards
- Administrative controls** – use policies, training and signs to warn workers
- Personal protective equipment (PPE)** – use gloves, glasses, hearing protection etc.

Personal protective equipment is always the **last option** used in the hierarchy of control as a means of protection!

Mobile Crushing Plant Inspection Checklist

Risk Matrix Legends			
Rating	Safety	Health	Environment
1 Minor	Single minor injury to one person. First aid or no treatment required. No lost time.	Reversible health effects of minor concern only requiring minor first aid treatment.	Issues of non-continuous nature with promptly reversible impact or consequence (e.g. within shift). Low-level incident, site contained.
2 Moderate	Medically treated injury. Reversible injury. Does not lead to restricted duties.	Reversible health effects of concern that results in medical treatment but does not lead to restricted duties.	Issues of a non-continuous nature and minor impact and consequence. Low-level incident, site contained. Short term reversible (e.g. within days).
3 Serious	Reversible injury or moderate irreversible impairment. Less than 10 days lost time.	Severe but reversible health effects. Results in a lost time illness of less than 10 days.	Issues of a continuous nature - limited impact and consequence Incident resulting in some site contamination. Medium term recovery impact.
4 Major	Severe irreversible damage to one or more persons. Lost Time Injury greater than 10 days.	Severe and irreversible health effects or disabling illness.	Compliance issue with large fine, media attention. Serious harm not immediately recovered. Significant site contamination or off-site impact. Long term recovery.
5 Catastrophic	Fatality. Permanent disabling injuries.	Life threatening or permanently disabling illness.	Issues of a continuous nature with major long-term impact and potentially serious consequences.

Rating	Descriptor	Description	Suggested Frequency
A	Almost certain	The event is expected to occur	Recurring event during the lifetime of a project/operation, e.g. More than once per month
B	Likely	The event will probably occur	Event that may occur frequently during the lifetime of a project/operation, e.g. At least once per year
C	Possible	The event should occur	Event that may occur during the lifetime of a project/operation e.g. Once in 3 years
D	Unlikely	The event could occur	Event that is unlikely to occur during the lifetime of a project/operation e.g. Once in 10 years
E	Rare	The event may occur only in exceptional circumstances	Event that is very unlikely to occur during the lifetime of a project/operation, e.g. Once in 15 years

Rating	Definition	Level of Involvement
Extreme	Cease work - No works shall be conducted until controls are implemented to reduce the risk level. Immediate formal risk assessment required.	The most senior person on site (Chief Executive Officer, Managing Director, General Manager) must review and approve risk control measures before allowing work to recommence
High	Corrective action required. Normally permits required to perform work. Safe Work Procedure or Job Hazard Analysis is mandatory.	Mine Operator and or Quarry Manager review required
Moderate	Corrective action required. Job Hazard Analysis or Safe Work Procedure required.	Supervisor / Superintendent review required
Low	Corrective action where practical. Take 5 risk assessment required.	Supervisor to manage by routine procedures at operational level

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
1. GENERAL						
Do the operators have a Certificate of Competency or VOC for the mobile plant and crushing / screening plants they are operating? (check training records)						
Have the operators completed a pre-start checklist for the crushing / screening plants?						
Have the operators completed a pre-start checklist for the mobile plant they are operating?						
Have the operators completed a Take Time Take Charge (or similar)?						
Is there a functional "Two Way" communications system?						
Is the overall appearance of the area neat and tidy?						
Does all wiring / hosing appear to be in good order and neatly stored out of the way?						
Do dust emissions appear to be under control?						
Is there suitable and adequate lighting for pre-dawn and after sunset operations?						
Is there suitable access to the mobile plant that is loading the primary hopper?						
If using an Excavator, ensure that there is a "trough" between the "High Wall" and the Excavator?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
If using a Loader, is the loading ramp even and of sufficient width to operate safely? Are side bunds in place?						
If using a Loader, does the loading ramp have side bunds / edge protection in place?						
2. PRIMARY PAD AREA						
Is the Pad area level with at least 1m clearway all around?						
Is the warning signage clean and legible?						
Is the area free from trip hazards e.g. rocks on access / walkways of the pad area? e.g. spillage						
Is there unobstructed access for the service vehicle?						
3. PRIMARY TRACK AND FRAME						
Are the grousers / track plates in good condition (loose, missing, bent, worn etc.)?						
Are the idlers, pulleys in good condition?						
Are the tracks "tight"?						
Is the area free from any major structural damage (bolts missing, broken welds, bent sections etc.)?						
4. PRIMARY JAW AREA AND ACCESS						
Are all fire extinguishers correctly tagged, sign posted and charged?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are warning signs present? e.g. emergency stop, restricted access						
Is the warning signage clean and legible?						
Are Emergency Stop Buttons easily accessible, identifiable and functioning properly?						
Are the Chains / Gates preventing access secured / closed?						
Are the steps and handrails in good condition and allow three points of contact?						
Are the Stairways / Walkways free from trip hazards and obstructions?						
Are the control panels clean and in good order (doors closing / lockable etc.)						
Are all warning lights working correctly on the control panel? (test button)						
Are all lights working correctly on the rig?						
Is the rock breaker (where fitted) functioning properly? (observe active test)						
Is the area free from any significant leaks around the rock breaker and controls?						
Is guarding in place to prevent access to dangerous moving parts (access to jaw area etc.)						
Is the Guarding around the rock breaker in good order?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Is the Guarding around the Jaw in good order?						
Do the rams appear to be in good condition and free from pitting and scoring?						
5. PRIMARY DISCHARGE CONVEYOR						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
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6. SIDE SCALPS CONVEYOR

Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						

7. SCREENING UNIT PAD AREA

Is the Pad area level with at least 1m clearway all around?						
Is the warning signage clean and legible?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Is the area free from any trip hazards e.g. rocks on access / walkways of the pad area? e.g. spillage						
Is there unobstructed access for the service vehicle?						
8. SCREENING UNIT TRACK AND FRAME						
Are the grousers / track plates in good condition (loose, missing, bent, worn etc.)?						
Are the idlers, pulleys in good condition?						
Are the Tracks "Tight"?						
Is the area free from any major structural damage (bolts missing, broken welds, bent sections etc.)?						
Are the stabiliser legs down and locking pins inserted?						
9. SCREENING AREA AND ACCESS						
Are all fire extinguishers correctly tagged, sign posted and charged?						
Are warning signs present? e.g. emergency stop, restricted access						
Is the warning signage clean and legible?						
Are Emergency Stop Buttons easily accessible and identifiable and functioning properly?						
Are the Chains / Gates preventing access secured / closed?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are the steps and handrails in good condition and allow three point contact?						
Are the Stairways / Walkways free from trip hazards and obstructions?						
Are the control panels clean and in good order (doors closing / lockable etc.)						
Are all warning lights working correctly on the control panel? (test button)						
Are all lights working correctly on the unit?						
Is the Guarding around the screen mechanisms in good order?						
Are the grease points easily accessible and appear to be functional?						
Are the springs on the screen deck in good condition and free from broken sections?						
Is the area free from any "loose material" build up on any of the framework / ledges?						
10. FEED CONVEYOR (UNDER HOPPER)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						
11. LIFT CONVEYOR (DISCHARGE ONTO SCREEN)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						
12. DISCHARGE CONVEYOR (TO STACKER)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
13. STACKER CONVEYOR						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Do Lanyards have a "Direct" line of pull? (straight)						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Do skirt rubbers appear to be in good condition? (look for spillage, dust)						
14. SIDE CONVEYOR (TO SECONDARY CRUSHER)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						
15. SIDE CONVEYOR (NON - FUNCTIONAL SIDE)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is the Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Are the grease points easily accessible and appear to be functional?						
16. SIDE CONVEYOR (NON - FUNCTIONAL SIDE)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
17. SECONDARY PAD AREA						
Is the Pad area level with at least 1m clearway all around?						
Is the warning signage clean and legible?						
Is the area free from trip hazards e.g. rocks on access / walkways of the pad area? e.g. spillage						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Is there unobstructed access for the service vehicle?						
18. SECONDARY TRACK AND FRAME						
Are the grousers / track plates in good condition (loose, missing, bent, worn etc.)?						
Are the idlers, pulleys in good condition?						
Are the tracks "tight"?						
Is the area free from any major structural damage (bolts missing, broken welds, bent sections etc.)?						
19. SECONDARY CONE AREA AND ACCESS						
Are all fire extinguishers correctly tagged, sign posted and charged?						
Are warning signs present? e.g. emergency stop, restricted access						
Is the warning signage clean and legible?						
Are Emergency Stop buttons Easily accessible and identifiable and functioning properly?						
Are the Chains / Gates preventing access secured / closed?						
Are the steps and handrails in good condition and allow three point contact?						
Are the Stairways / Walkways free from trip hazards and obstructions?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are the control panels clean and in good order (doors closing etc.)						
Are all warning lights working correctly on the control panel? (test button)						
Are all lights working correctly on the rig?						
Is the Cone appropriately guarded?						
Are the grease points easily accessible and appear to be functional?						
Is the area free from any "loose material" build up on any of the framework, ledges?						
Is the condition of the mantle in good condition? (no cracks, excessive wear etc.)						
20. LIFT CONVEYOR (TO THE CONE)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Do skirt rubbers appear to be in good condition? (look for spillage, dust)						
21. DISCHARGE CONVEYOR (UNDER THE CONE)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull?						
Are conveyor inspection covers in place?						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Do skirt rubbers appear to be in good condition? (look for spillage, dust)						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are the grease points easily accessible and appear to be functional?						
22. STACKER CONVEYOR (TO THE HOPPER)						
Is the conveyor belt in good condition? (free of cuts, holes, wear etc.)						
Are Emergency Stop lanyards clearly marked and easily accessible?						
Do Lanyards have a "Direct" line of pull? (straight)						
Is Tail Drum inaccessible or securely guarded?						
Is Head Drum inaccessible or securely guarded?						
Are Trough Idlers inaccessible or securely guarded?						
Are Return Idlers inaccessible or securely guarded?						
Is the area free from any spillage or excessive dust emissions from the conveyor?						
Do skirt rubbers appear to be in good condition? (look for spillage, dust)						
Are the grease points easily accessible and appear to be functional?						
Are the tyres in good condition?						
Do the axles and framework appear to be in good condition?						

Mobile Crushing Plant Inspection Checklist

Inspection item:	Y	N	N/A	Risk Level	Details of non-conformance	Photo (if required)
Are the wheels chocked?						
Do the height adjusting arms have locking pins and clips?						
23. SIGN OFF <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%; text-align: center;"> <div style="border: 1px solid black; height: 30px; margin: 0 auto; width: 90%;"></div> <p>Person conducting Inspection</p> </div> <div style="width: 40%; text-align: center;"> <div style="border: 1px solid black; height: 30px; margin: 0 auto; width: 90%;"></div> <p>Signature</p> </div> <div style="width: 25%; text-align: center;"> <div style="border: 1px solid black; height: 30px; margin: 0 auto; width: 80%;"></div> <p>Date of Report</p> </div> </div>						

Mobile Crushing Plant Inspection Checklist

24. CORRECTIVE ACTION PLAN				
Action No	Action required	Responsibility	Completion Date	Review Date
1				
2				
3				
4				
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6				
7				
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Mining & Quarrying
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Work Health and Safety Performance Standards Guide

Promoting Work Health and Safety in the Workplace

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this guide is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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Work Health and Safety Performance Standards Guide

This Guidance Material has been developed in accordance with Chapter 10, Part 2, Division 1, Performance Standards and Audit of the *Work Health and Safety Regulations 2012* (SA).

AIM

This Guidance Material has been developed to assist mining / quarrying operators in establishing performance standards for measuring the effectiveness of their Safety Management Systems and Work Health and Safety Performance outcomes in accordance with the *Work Health and Safety Regulations 2012* (SA).

1. Legal Requirements

Under the *Work Health and Safety Regulations 2012* (SA), a person who conducts a business or undertaking (PCBU) has a duty of care to ensure, so far as is reasonably practicable that:

- Workers and other persons are not put at risk from work carried out as part of the business or undertaking.

In addition, Chapter 10 (Mines) of the *Work Health and Safety Regulations 2012* (SA) has specific requirements in relation to the management of workplace health and safety matters:

- Regulation 622, a mine operator of a mine has a duty to establish and implement a Safety Management System
- Regulation 623, a Safety Management System for a mine must include:
 - The performance standards for measuring the effectiveness of all aspects of the safety management system that –
 - are sufficiently detailed to show how the mine operator will ensure the effectiveness of the safety management system
 - include steps to be taken to continually improve the safety management system
 - The way in which the performance standards are to be met
 - A system for auditing the effectiveness of the safety management system for the mine against the performance standards, including the methods, frequency and results of the audit process.

2. What is Work Health and Safety Performance?

Work Health and Safety Performance can be described as a measure of the level of effectiveness of business activities aimed at the prevention of injury and disease to persons in the workplace.

Dependent upon what aspects of Work Health and Safety Performance are being measured, the evaluation may demonstrate:

- Historical Work Health and Safety Performance and trends;
- Compliance with legal obligations;
- Visible commitment in the provision of duty of care responsibilities; and
- Adoption of best practices commonly used within the industry.

3. Why do we Measure Work Health and Safety Performance?

While Legislation now requires a mine / quarry to implement performance standards to measure the effectiveness of the safety management system, it also makes good business sense to measure an organisations performance to determine whether objectives or targets set, are being achieved and Work Health and Safety is continually improving.

Measuring Work Health and Safety Performance, using performance indicators, provides information on the effectiveness of processes in place to minimise the occurrence of workplace injury/disease.

Monitoring activities and initiatives and recording the level of success aimed at preventing workplace injury and disease will identify how an organisation is performing and additionally, identify areas where Work Health and Safety can be improved.

It also provides effective immediate feedback to workers and management as to whether or not the things that should / could be done are being done.

This information provides an indication of management commitment to Work Health and Safety improvement.

4. Objectives and Targets

Objectives and targets can assist you in implementing your Work Health and Safety policy and provide milestones towards improved management of Work Health and Safety. There should be no difference between the commitments in the policy and those in the objectives.

They should cover your significant impacts and meet your commitment to continual improvement (particularly if you are aiming to achieve a formal Work Health and Safety standard).

Objectives will not be achieved if personnel either do not understand, or do not want to support the goals, so it's important to get staff involved in the process of setting the objectives from an early stage to gain commitment.

Objectives and targets are not static and will need to be reviewed and updated regularly according to the progress and continual improvement of the Work Health and Safety management system.

Examples of Key Work Health and Safety Objectives:

- To go home from work without injury and illness.
- To define and communicate Work Health and Safety objectives, principles, expectations and requirements.
- To provide a uniform approach to the management of Work Health and Safety requirements.
- To establish the program goals, targets and Key Performance Indicators (KPIs).
- To establish contractor performance requirements to ensure Work Health and Safety compliance.
- To define responsibilities and accountabilities for all personnel to ensure effective implementation of the Work Health and Safety Management Plan.
- To establish and reinforce relationships between the Work Health and Safety Management Plan, site procedures and relevant standards.
- To pro-actively facilitate communication with, consultation with and the participation of all staff (including managers, supervisors, and workers) in Work Health and Safety matters relevant to their scope of operations.
- To identify, assess and implement control measures for workplace hazards and risks within our control (so far as reasonably practicable).
- To ensure processes for the effective management and reporting of Work Health and Safety incidents.
- To facilitate the continual improvement process of Work Health and Safety.
- To provide information and training for personnel at all levels to meet responsibilities.

Targets are the 'stepping stone' to achieving the overall 'goal' of a Work Health and Safety objective. A Work Health and Safety target is a detailed performance requirement, measured where practicable, which needs to be set and met to achieve objectives.

Both the individual targets and the overall 'goal' objectives should be **SMART**:

Specific

- The broader the objective, the more complex the series of targets needed to address it.

Measurable

- It is important to choose the right Work Health and Safety Performance indicators for the desired outcome.
- Ask yourself 'how will the impact look once the objective has been achieved?'
- Is the outcome quantifiable?

Achievable

- 'Stretch' goals will encourage high performance; however, unachievable goals will be a disincentive.

Realistic

- Closely monitor your objectives and targets to assess their success and whether the expected progress is being made.

Time-bound

- If you don't set a date you expect the above to be met by, then their impact is lost. Try to set dates that will give results in time for regular management review meetings.

Refer to Appendix 1 for examples

5. Work Health and Safety Performance Indicators

A performance indicator is defined as “a statistic or other unit of information which reflects, directly or indirectly, the extent to which an expected outcome is achieved, or the quality of processes leading to that outcome”.

In order to measure particular aspects of an organisation's Work Health and Safety Performance, performance indicators need to be developed for areas that are to be measured.

Performance indicators can be either:

- **Quantitative** – An indicator that can be counted or measured and is described numerically. For example, number of safety audits conducted, injury frequency rates.
- **Qualitative** – An indicator that would describe or assess a quality or a behavior. For example, worker ratings of management commitment to achieving 'best practice' in Work Health and Safety.

Measurement of safety performance indicators can be outcome-focused or process / positive focused.

Outcome indicators (lagging indicators)

Outcome indicators focus on the measurement of loss, such as lost time injury frequency rates (LTIFRs), workers' compensation costs or fatality / incidence rates.

These indicators generally measure failure to control or manage risks. However, outcome indicators are limited in their use as the numbers recorded are generally low which makes establishing trends difficult. They also give no indication how to address key risks and are therefore not appropriate for identifying problem areas.

Process / Positive performance indicators (PPIs) (leading indicators)

Positive Performance Indicators are aimed at evaluating how successfully an organisation is performing in its management of Work Health and Safety by monitoring the processes that provide good Work Health and Safety outcomes and highlight the areas where systems and procedures could be improved.

They can be developed on an organisation / industry basis, or on a departmental / workgroup basis, and normally involve consultation with workers and other stakeholders in the development of relevant measures.

Examples of Process / Positive performance indicators include:

- The number of safety audits conducted;
- The % of non-conformances identified and corrected as a result of a safety audit;
- The % of workers receiving Work Health and Safety training; and
- Hazard reporting.

When Positive Performance Indicators are used in conjunction with outcome measures, they can offer a comprehensive overview of Work Health and Safety Performance and assist the search for the underlying causes of work-related injury and illness.

It is important that organisations develop and use a balanced combination of both outcome indicators and Positive Performance Indicators to effectively measure Work Health and Safety Performance.

Refer to Appendix 2 for examples

6. Process Improvement Model

In the model for process improvement, Positive Performance Indicators may be one of the following:

Inputs (key activities)

Input Positive Performance Indicators are measures of what actions or initiatives have been undertaken in the workplace to improve Work Health and Safety and can provide useful information on participation, leadership and communication. Although they are seen as good indicators of commitment and effort, they are not indicators of the effectiveness of the activities.

In practical terms, organisations will need to define those activities in their safety management system that needs to be promoted and reinforced. A focus on these activities can be used to visibly drive the safety culture in the workplace. Positive Performance Indicators can be developed for these activities.

Processes (monitoring key risks)

Process Positive Performance Indicators are measures that are used to monitor the major risks in an organisation. These can be developed by identification of the key contributors to the outcomes of concern and developing measures to monitor behaviours and practices.

- For example, if a high number of injuries from hazardous manual tasks were an 'outcome of concern' and key contributors to this occurrence were factors like poor manual handling techniques and infrequent use of lifting aids, then performance measures would be developed to monitor these practices.
- In developing Positive Performance Indicators of this type, organisations should focus on all core risks and ensure that measures are in place to provide an indication that risk control practices are being followed.

Outputs (milestones)

Output indicators are used to measure outcomes in terms of the achievement of objectives, and on the progress towards the achievement of targets and higher level goals.

- For example, if the goal is that within a particular time period, storage and handling requirements for hazardous materials are understood by staff, a suitable indicator of this type would be number or % of staff competent in the storage and handling requirements for hazardous substances.

7. The Systematic Management of Work Health and Safety

In order to improve the level of Work Health and Safety Performance, a systematic approach needs to be undertaken.

The focus of Work Health and Safety management has to shift from an outlying position (where the safety management system is not integrated into the overall management system of the organisation) to one of total integration into an organisation's management systems. For this to occur, managers must see good Work Health and Safety Performance as a critical part of good sustainable business practice.

To achieve this, a reliable system for Work Health and Safety Performance measurement, in terms of evaluating the systematic management of Work Health and Safety in the workplace, will need to be developed and used. This is the role of Positive Performance Indicators.

It should be noted that, unless an organisation has a systematic approach to the management of Work Health and Safety, and in particular to the planning of prevention activities, then Positive Performance Indicators will be of little assistance.

This 'systematic approach' can take many forms but usually consists of a number of key elements that together are often referred to as a Work Health and Safety Management System. There are many variations of Work Health and Safety Management System in use, but all have the following principles:

- Leadership commitment
- Planning
- Implementation
- Measurement and evaluation
- Reviewing and revising the system to facilitate continual improvement

The format of a Work Health and Safety Management System will be based on the core functions of an organisation and appropriate to the specific needs of that organisation.

The type and complexity of the Work Health and Safety Management System in place may range from highly developed systems that are independently audited against a formal standard for certification (AS 4801), to less structured informal management processes.

Smaller organisations with limited Work Health and Safety resources are likely to have a basic management system, but in all cases the systematic management of Work Health and Safety should have the process of risk management principles at its core.

- The identification of hazards, assessing the risk associated with those hazards and applying measures to control the risks should form the focus of Work Health and Safety management support in any organisation, irrespective of its size.
- Other important components in a Work Health and Safety Management System include responsibility and accountabilities of key staff, competencies for managers and workers, policies and procedures, emergency preparedness, monitoring and review, and plans for continual improvement.

Accordingly, the type of Work Health and Safety Management System that an organisation has in place, and the nature of the risks that it needs to control, will ultimately determine the types of performance measures that it will need to develop to evaluate the effectiveness of that system.

Categories of Positive Performance Indicators

While individual Positive Performance Indicators will need to reflect the characteristics of Work Health and Safety problems and strategies applying to particular organisations and workplaces, there are a number of core categories of Positive Performance Indicators that are common to most large organisations.

For the purposes of this guide, the categories of Positive Performance Indicators outlined below represent those principles and core elements incorporated into the Work Health and Safety Management System model for continual improvement.

- **Commitment and policy** – Measures demonstrated commitment to improve Work Health and Safety Performance.
- **Planning** – Measures what procedures and actions are in place to eliminate workplace injury and disease.
- **Implementation** – Measures the capability and support mechanisms that are necessary to achieve Work Health and Safety objectives and targets.
- **Measurement and evaluation** – Measures the extent to which workplace health and safety is monitored and evaluated so that issues can be identified and corrective action taken.
- **Review and improvement** – Measures the effectiveness of the Work Health and Safety management system, and its continuing suitability.

Refer to Appendix 2 for examples

In recognition of the needs and limited resources of small organisations, an alternative example of core Positive Performance Indicators categories is provided below as a guide to measure their Work Health and Safety Performance using Positive Performance Indicators.

These indicators reflect processes designed to maintain a high level of Work Health and Safety Performance and compliance.

- **Risk management** – workplace hazards are identified and associated risks eliminated or controlled.
- **Management of work processes** – safe systems of work implemented.
- **Participation, communication and skills** – workers are trained and competent and are actively involved in problem solving.

- **Planning, design and procurement** – Work Health and Safety issues are addressed in the design, planning and procurement phases and activities of the operations.
- **Monitoring and review** – Work Health and Safety is self-assessed and / or independently audited for effectiveness of systems and practices.

Note: *The above Positive Performance Indicators categories are not considered to be the definitive set, and organisations may wish to use alternative categories that follow more closely the elements in their own Work Health and Safety Management System.*

Refer to Appendix 3 for examples

Selection of Positive Performance Indicators

In general, the following issues need to be considered when selecting Positive Performance Indicators:

- The categories of Positive Performance Indicators should reflect the elements of the Work Health and Safety Management System (or in the case of small business, the processes designed to maintain a high level of Work Health and Safety) in any specific workplace.
- They should also measure the most significant risks in the workplace – after all, it is ‘what matters most’ that should be measured.

In addition, it should include at least:

- Hazard identification;
- Risk exposure;
- Risk reduction and control measures; and
- Attainment of competencies in Work Health and Safety by managers and staff.

The types of Positive Performance Indicators selected should also reflect the needs and priorities of the organisation.

For example:

Input Performance Indicators - Can be used as a measure to ensure that commitment and effort continues as planned.

Process Performance Indicators - Can be used to monitor key risks.

Output Performance Indicators - Can be used to measure progress towards specific goals.

Organisations should avoid selecting too many Positive Performance Indicators. The task of collecting information on a large number of indicators may result in an evaluation system becoming unworkable.

It is better to start with a small number of Positive Performance Indicators and develop additional measures as the Work Health and Safety Management System matures.

FURTHER ASSISTANCE

MAQOHSC Work Health and Safety Specialists are available to provide further advice and assistance on all Work Health and Safety matters.

MAQOHSC Work Health and Safety Specialists are able to be contacted via our website at www.maqohsc.sa.gov.au or email maqohsc@sa.gov.au.

ADDITIONAL INFORMATION

Work Health and Safety Legislation, Codes of Practice, fact sheets, Health and Safety Representatives (HSR) information and guides can be found at the following websites:

SafeWork SA – www.safework.sa.gov.au or call 1300 365 255

Safe Work Australia – www.safeworkaustralia.gov.au, or call 1300 551 832

REFERENCES

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA), Chapter 10, Mines, Regulations 622, 623

Guidance on the use of Positive Performance Indicators (Australian Safety and Compensation Council)

Positive Performance Indicators (Comcare)

Positive Performance Measures : a Practical Guide (Minerals Council of Australia)

Appendix 1: Objectives and Targets example

Action No.	Origin of Action	Brief Description of Action	Justification	Objectives	Targets	Status	Accountability	Time frame for Completion	Priority
SAFETY									
1	Implementation of Work Health and Safety legislation	Work Health and Safety Legislation compliance register	Work Health and Safety Legislation passed through parliament and implemented 01 January 2013	Conduct review of compliance register against new legislation and coordinate project to ensure compliance to new legislation	Full compliance with regulatory requirements	In Progress	Safety Coordinator	Q3	High
2	Contractor Management	Contractor Compliance Auditing	Work Health and Safety Act 2012, Part 2, Division 2, Section 19 - Primary Duty of Care	All contractor companies to be audited for compliance to Work Health and Safety requirements	Full compliance with regulatory requirements	Complete	Safety Coordinator	Q2	Mod
3	Risk Management	Review of risk register	Work Health and Safety Regulations 2012, Chapter 3, Part 1 - Managing risks to health and safety	Review of risk register	Ensure all foreseeable hazards are identified; ranked and effective controls are in place.	In Progress	Site Management	Q3	High
4	Injury performance 2012	Electric Shock Incidents	4 electric shock incidents in Q4 2012	Implement strategies to reduce electric shock incidents.	Increased awareness of electrical hazards in the workplace	Complete	Safety Coordinator	Q1	High
5	Injury performance 2012	Musculo Skeletal Injuries	Injury statistics show 47% of all injuries are musculo skeletal related	Implement strategies to reduce musculo skeletal injuries	Reduction of 20% in musculo skeletal injuries across site	Complete	Health and Safety Committee	Q2	High
HEALTH									
7	Implementation of Work Health and Safety legislation	Occupational Hygiene Monitoring	Duty to ensure that appropriate health monitoring is provided	6 monthly monitoring of dust, noise and diesel particulate exposure	Ensure personnel are not exposed to excessive levels	Complete	Safety Coordinator and Human Resources	Q1	Mod
8	Harmonisation legislation	Periodic and Exit Medicals	Legislative requirement - Bill before parliament February 2012	Develop process for ensuring all workers have a periodic and exit medical	All workers have regular (within 5 years) and exit medicals	In Progress	Safety Coordinator and Human Resources	Q2	Mod
WORK HEALTH AND SAFETY MANAGEMENT SYSTEM									
10	Implementation of Work Health and Safety legislation	Safety Management System	Draft Code of Practice developed for Work Health and Safety Management Systems in Mining.	Conduct review of current Safety Management System	Full compliance with requirements of code of practice	In Progress	Safety Coordinator	Q4	High
TRAINING									
11	Identified gap by Management Team	Develop verification of competency for processing & maintenance operations	Work Health and Safety legislative requirement	Have verification of competency in place for processing and maintenance operations	All personnel completed relevant verification of competency	In Progress	Safety Coordinator and Supervisors	Q4	Mod

Appendix 2: Work Health and Safety Management System Performance Indicators

PROCESS / POSITIVE INDICATORS

LEADING INDICATORS	MEASUREMENT	VALIDATION	TARGET
Leadership Commitment	Work Health and Safety and Safety Management Plan Commitment	<ul style="list-style-type: none"> Signed - Roles and Responsibilities. (Line Management and Above) 	<ul style="list-style-type: none"> 100%
	Work Health and Safety Activity Planner	<ul style="list-style-type: none"> Work Health and Safety Compliance audits validate implementation 	<ul style="list-style-type: none"> 100% fully implemented
	Performance and Compliance Review	<ul style="list-style-type: none"> Weekly and monthly project reports completed by set timeframes Audit reports Work Health and Safety forum agendas and minutes 	<ul style="list-style-type: none"> 100% - Senior Management to review all project performance and compliance requirements
	Personal Work Health and Safety Plan	<ul style="list-style-type: none"> Implementation of Personal Work Health and Safety Plans (Line Management and Above) 	<ul style="list-style-type: none"> 100% - All project personnel complete their top 5
	Completed and documented – Inspections and Time in Fields	<ul style="list-style-type: none"> Inspection Records + Time in Fields 	<ul style="list-style-type: none"> 1 Inspection + 2 Time in Field (TIF) per site visit
Compliance with all company standards, plans and other requirements	Audits conducted as per schedule	<ul style="list-style-type: none"> Audit schedule with audit reports including a non-conformance database 	<ul style="list-style-type: none"> 100% - audits executed as per schedule Minimum 85% compliance on any audit 100% Non-conformances and TIF closed out within agreed time
	All inspections executed as scheduled on site Work Health and Safety activity planner	<ul style="list-style-type: none"> Activity Inspection records 	<ul style="list-style-type: none"> 100% - all inspections executed as per schedule
	Time in Field (TIF) conducted	<ul style="list-style-type: none"> TIF based statistical reporting (set % ratio of TIF to # of personnel on site) 	<ul style="list-style-type: none"> Minimum 10% workforce per week
Planned Work Health and Safety Activities	All Work Health and Safety activities identified and scheduled on Work Health and Safety Activity Planner	<ul style="list-style-type: none"> Activity planner developed and implemented with individual identified to complete each week Inspection and audit records completed 	<ul style="list-style-type: none"> Minimum - 95% of activities completed, and schedule up to date at any time
Communication and Consultation	Daily Pre-Start Meetings held Toolbox Meetings Work Health and Safety Committee Meetings	<ul style="list-style-type: none"> Attendance register and records Meeting Agenda Meeting minutes Training support material and Compliance Audits 	<ul style="list-style-type: none"> 1/ crew / daily Toolbox Minimum 1 per week Committees 1 / monthly
Incidents, , inspections and review actions closed out on time	100% of actions closed out within allocated time	<ul style="list-style-type: none"> Formal Incident Reports Audit reports and registers Work Health and Safety Monthly reports (stats / data) 	<ul style="list-style-type: none"> 100% of all actions closed out within allocated timeframes

OUTCOME FOCUSED INDICATORS

LAGGING INDICATORS	MEASUREMENT	MONITORING MECHANISM	TARGET
LTIFR	Total # of Lost Time Injuries sustained for the hours worked based upon 1,000,000 hours	<ul style="list-style-type: none"> Injury and hourly data reported in Work Health and Safety Reports 	<ul style="list-style-type: none"> 0 (aspiration)
TRCFR	Total # of Total Recordable Injuries sustained for the total hours worked based upon 1,000,000 hours	<ul style="list-style-type: none"> Injury and hourly data reported in Work Health and Safety Reports 	<ul style="list-style-type: none"> 0 (aspiration)

LAGGING INDICATORS	MEASUREMENT	MONITORING MECHANISM	TARGET
ADIFR	Total # of Alternative Duty Injuries sustained for the total hours worked based upon 1,000,000 hours	<ul style="list-style-type: none"> Injury and hourly data reported in Work Health and Safety Reports 	<ul style="list-style-type: none"> 0 (aspiration)
FACFR	Total # of First Aid Injuries for the total hours worked based upon 1,000,000 hours	<ul style="list-style-type: none"> Incident and hourly data reported in Work Health and Safety Reports 	<ul style="list-style-type: none"> 0 (aspiration)

Examples of performance indicators against each of the Work Health and Safety Management System core categories

POSITIVE PERFORMANCE INDICATORS	POSITIVE PERFORMANCE INDICATORS IN THIS CATEGORY MEASURE:	PERFORMANCE INDICATORS	HOW TO MEASURE
COMMITMENT AND POLICY	Demonstrated commitment to improve Work Health and Safety Performance	<ul style="list-style-type: none"> Evidence of Work Health and Safety policy statement signed by most senior manager Frequency and quality of Work Health and Safety reporting by or to Senior Management Senior managers performance appraisals include Work Health and Safety Percentage of workforce and contractors covered by consultation and processes and Work Health and Safety representation Rating of effectiveness of worker participation in Work Health and Safety management 	<ul style="list-style-type: none"> Worker survey / questionnaire Examination of records
PLANNING	Procedures established to eliminate workplace injury and disease	<ul style="list-style-type: none"> Operating procedures are developed and relevant The extent to which an organisation requires risks to be managed using a process of hazard identification and risk assessment and control Extent to which health and safety information is accessible to workers Extent to which purchasing guidelines and contracts include specific health and safety requirements (for the delivery of the goods or services) 	<ul style="list-style-type: none"> Worker survey / questionnaire Examination of records
IMPLEMENTATION	Capability and support mechanisms that are necessary to achieve Work Health and Safety objectives and targets	<ul style="list-style-type: none"> <input type="checkbox"/> Percentage of workplace inspections conducted over a specified timeframe <input type="checkbox"/> Percentage of high risks identified over a specified timeframe <input type="checkbox"/> The proportion of items identified through safety walks and inspections that are repeat items measured over a specified timeframe <input type="checkbox"/> The proportion of reported incidents that do not result in injury compared with those that do, over a specified timeframe <input type="checkbox"/> Percentage of planned management visits conducted over a specified timeframe <input type="checkbox"/> Percentage of managers and workers that have received Work Health and Safety training (e.g. induction, job-specific, hazard management, emergency procedures) 	<ul style="list-style-type: none"> <input type="checkbox"/> Observation - walk through inspections / audits <input type="checkbox"/> Examination of hazard reports <input type="checkbox"/> Examination of hazard logs <input type="checkbox"/> Review of maintenance log <input type="checkbox"/> Analysis of accident and incident reports
MEASUREMENT AND EVALUATION	The extent to which Work Health and Safety is monitored and evaluated so that issues can be identified and corrective action taken	<ul style="list-style-type: none"> The extent to which health and environmental monitoring is undertaken and records are maintained and evaluated Extent to which accident and incident records maintained and evaluated to identify trends Extent to which corrective action is taken to address the identified issues 	<ul style="list-style-type: none"> Worker survey / questionnaire Examination of records
REVIEW AND IMPROVEMENT	The effectiveness of the Work Health and Safety Management System and its continuing suitability	<ul style="list-style-type: none"> Percentage change in internal or independent Work Health and Safety Management System audit over a specified period of time 	<ul style="list-style-type: none"> Management systems audits Examination of records

Note: These are examples only; organisations must develop their own Positive Performance Indicators applicable to the particular organisation's needs. It is recommended that when selecting Positive Performance Indicators, choose a range of indicators to cover all of the categories listed from above.

Appendix 3: Work Health and Safety Management System Positive Performance Indicators for Small Organisations

Examples of performance indicators against each of the Core Categories for small organisations

POSITIVE PERFORMANCE INDICATOR CATEGORY	POSITIVE PERFORMANCE INDICATORS IN THIS CATEGORY MEASURE:	PERFORMANCE INDICATORS	HOW TO MEASURE
RISK MANAGEMENT	The extent to which workplace hazards are identified and associated risks are eliminated or controlled	<ul style="list-style-type: none"> Percentage of planned risk assessments Percentage of reported incidents investigated Percentage of planned workplace inspections completed 	<ul style="list-style-type: none"> Observation - walk through inspections / audits Examination of hazard reports / hazard logs Examination of maintenance log Examination of accident and incident reports
MANAGEMENT OF WORK PROCESS	The extent to which safe systems of work are actually implemented	<ul style="list-style-type: none"> Percentage of risk assessment recommendations completed Percentage of workplace inspections recommendations completed Percentage of incident investigations implemented 	<ul style="list-style-type: none"> <input type="checkbox"/> Observation - walk through inspections / audits <input type="checkbox"/> Examination of hazard reports / hazard logs <input type="checkbox"/> Examination of maintenance log <input type="checkbox"/> Worker survey / questionnaire
PARTICIPATION, COMMUNICATION AND SKILLS	<p>The extent to which the working environment provides people with opportunities and capabilities to effectively contribute to Work Health and Safety management</p> <p>The extent to which they are actively involved in problem solving and decision making and receive education and training</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Worker perception of management commitment <input type="checkbox"/> Rating of the effectiveness of Work Health and Safety <input type="checkbox"/> Communication at toolbox/work meetings <input type="checkbox"/> Rating of the effectiveness of worker participation in Work Health and Safety management (including involvement in the Work Health and Safety Committee) <input type="checkbox"/> Percentage of employees that have received adequate Work Health and Safety training <input type="checkbox"/> Percentage of managers that have received Work Health and Safety training 	<ul style="list-style-type: none"> Worker survey / questionnaire Examination of records
PLANNING, DESIGN AND PROCUREMENT	The extent to which Work Health and Safety is addressed in the design, planning and procurement phases and activities of the project	<ul style="list-style-type: none"> <input type="checkbox"/> Percentage of contracts with Work Health and Safety clauses <input type="checkbox"/> Number of instances where procurement decisions are based on Work Health and Safety considerations over the life of the project <input type="checkbox"/> Number of instances where design changes are made to address identified 	<ul style="list-style-type: none"> Worker survey / questionnaire Examination of records
MONITORING AND REVIEW	The extent to which Work Health and Safety is self-assessed and / or independently audited for effectiveness of systems and practices	<ul style="list-style-type: none"> <input type="checkbox"/> Percentage of workplace inspections undertaken <input type="checkbox"/> Percentage change in overall rating over a specified timeframe 	<ul style="list-style-type: none"> <input type="checkbox"/> Worker survey / questionnaire <input type="checkbox"/> Examination of records

Note: This is an example only; organisations must develop their own Positive Performance Indicators applicable to the particular organisation's needs.

National Mine Safety Database, Quarterly Reporting Data Tool

Financial year start date **1/07/2017**

The National Mine Safety Database quarterly reporting requirements is a South Australian legislated requirement under Chapter 10 and Schedule 24 of the *Work Health and Safety Regulations 2012* (SA). For further enquiries regarding the National Mine Safety Database and reporting requirements, please contact SafeWork SA on 1300 365 255.

This excel tool has been created to assist the mining and quarrying industry in capturing the required data for the legislative quarterly reporting requirements of the National Mine Safety Database.

The quarterly reports generated with in this tool are :

Q1: July - September

Q2: October - December

Q3: January - March

Q4: April - June

This financial year quarterly numbering corresponds with the quarterly numbering within the National Mine Safety Database.

Personnel can enter data into the specific monthly spreadsheet daily, weekly or on a monthly basis.

Once data is entered into a monthly spread sheet, the tool automatically starts to self-populate a quarterly report data page.

NOTE!

Where no work has occurred on a specific day the cell is to be left blank.

When it is time to enter the required data into the National Mine Safety Database, stakeholders can click on the relevant quarter report data page, copy and paste the data into the National Mine Safety Database.

The tool is locked down and password protected to prevent the formulas and layout being accidentally altered.

If you have any questions about this tool, you can contact MAQOHSC on www.maqohsc.sa.gov.au

For further enquiries regarding the National Mine Safety Database, please contact SafeWork SA on 1300 365 255

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

IMPORTANT: The information in this template is of a general nature, and should not be relied upon as individual professional advice. If necessary, legal advice should be obtained from a legal practitioner with expertise in the field of Work Health and Safety law (SA).

Although every effort has been made to ensure that the information in this guide is complete, current and accurate, the Mining and Quarrying Occupational Health and Safety Committee, any agent, author, contributor or the South Australian Government, does not guarantee that it is so, and the Committee accepts no responsibility for any loss, damage or personal injury that may result from the use of any material which is not complete, current and accurate.

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February 2020

WORKERS MONTHLY DATA

July - 2017

[illegible]

CONTRACTORS MONTHLY DATA									
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July - 2017

[illegible]

[illegible][illegible]

[illegible][illegible]

[illegible][illegible]

[illegible]

September - 2017

WORKER & CONTRACTOR QUARTERLY REPORT Q1

2017

	Workers	Contractors	Total for Qtr.
Average No. of Workers	0	0	0.0
Total Hours Worked	0	0	0
Fatalities	0	0	0
Permanent Incapacities	0	0	0
Lost Time Injuries	0	0	0
No. of Days Lost	0	0	0
Restricted Duties Injuries	0	0	0
No. of Days on Restricted Duties	0	0	0
Medical Treatment Injuries	0	0	0
Total Number of Incidents	0	0	0

[illegible]

October - 2017

[illegible]

[illegible]

October - 2017

[illegible][illegible]

[illegible]

November - 2017

[illegible]

[illegible]

WORKER & CONTRACTOR QUARTERLY REPORT Q2

2017

	Workers	Contractors	Total for Qtr.
Average No. of Workers	0	0	0.0
Total Hours Worked	0	0	0
Fatalities	0	0	0
Permanent Incapacities	0	0	0
Lost Time Injuries	0	0	0
No. of Days Lost	0	0	0
Restricted Duties Injuries	0	0	0
No. of Days on Restricted Duties	0	0	0
Medical Treatment Injuries	0	0	0
Total Number of Incidents	0	0	0

[illegible]

Date	Average No. of Workers	Total Hours Worked	Fatalities	Permanent Incapacities	Lost Time Injuries	No. of Days Lost	Restricted Duties Injuries	No. of Days on Restricted Duties	Medical Treatment Injuries	Total Number of Incidents
------	------------------------	--------------------	------------	------------------------	--------------------	------------------	----------------------------	----------------------------------	----------------------------	---------------------------

CONTRACTORS MONTHLY DATA									
January - 2018									

Date	Average No. of Workers	Total Hours Worked	Fatalities	Permanent Incapacities	Lost Time Injuries	No. of Days Lost	Restricted Duties	No. of Days on Restricted	Medical Treatment	Total Number of
------	------------------------	--------------------	------------	------------------------	--------------------	------------------	-------------------	---------------------------	-------------------	-----------------

[illegible]

WORKERS MONTHLY DATA	
February - 2018	

[illegible][illegible]

CONTRACTORS MONTHLY DATA
February - 2018

[illegible][illegible]

[illegible]

[illegible]

WORKER & CONTRACTOR QUARTERLY REPORT Q3

2017

	Workers	Contractors	Total for Qtr.
Average No. of Workers	0	0	0.0
Total Hours Worked	0	0	0
Fatalities	0	0	0
Permanent Incapacities	0	0	0
Lost Time Injuries	0	0	0
No. of Days Lost	0	0	0
Restricted Duties Injuries	0	0	0
No. of Days on Restricted Duties	0	0	0
Medical Treatment Injuries	0	0	0
Total Number of Incidents	0	0	0

[illegible][illegible]

[illegible][illegible]

[illegible][illegible]

[illegible][illegible]

[illegible][illegible]

[illegible]

June - 2018

[illegible]

WORKER & CONTRACTOR QUARTERLY REPORT Q4

2017

	Workers	Contractors	Total for Qtr.
Average No. of Workers	0	0	0.0
Total Hours Worked	0	0	0
Fatalities	0	0	0
Permanent Incapacities	0	0	0
Lost Time Injuries	0	0	0
No. of Days Lost	0	0	0
Restricted Duties Injuries	0	0	0
No. of Days on Restricted Duties	0	0	0
Medical Treatment Injuries	0	0	0
Total Number of Incidents	0	0	0

WORKER & CONTRACTOR YEARLY SUMMARY**2017**

	Workers	Contractors	Total for Year
Average No. of Workers	#DIV/0!	#DIV/0!	#DIV/0!
Total Hours Worked	0	0	0
Fatalities	0	0	0
Permanent Incapacities	0	0	0
Lost Time Injuries	0	0	0
No. of Days Lost	0	0	0
Restricted Duties Injuries	0	0	0
No. of Days on Restricted Duties	0	0	0
Medical Treatment Injuries	0	0	0
Total Number of Incidents	0	0	0

Work Health and Safety Regulations 2012 (SA) Gap Analysis Tool

Purpose

The Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC) *Work Health and Safety Regulations 2012* (SA) Gap Analysis Tool is designed as a practical and proactive means for an organisation to:

- 1.) Complete an initial (benchmark) self-assessment of internal compliance with the *Work Health and Safety Regulations 2012* (SA) that are relevant to mining and quarrying operations within South Australia. It is intended that Mining and Quarrying Occupational Health and Safety Committee Work Health and Safety Specialists will assist in the initial review as part of the initial evaluation.
- 2.) Measure and monitor Work Health and Safety Regulatory compliance on a regular basis. The *Work Health and Safety Regulations 2012* (SA) Gap Analysis Tool is dated and keeps a running score, hence it is easy to monitor and measure improvements that take place over a period of time by re-using the tool periodically as required.
- 3.) Develop and implement an associated Improvement Action Plan, which is automatically generated when recommendations are entered in the Assessment sheet. This can then be used as a tool for planning, prioritising, resourcing, implementing or reviewing Work Health and Safety Systems by the organisations, Work Health and Safety Committees or teams, etc.
- 4.) Plan and encourage progression to a higher level of conformance / compliance via continuous improvement and in the process, systematically eliminate or reduce the risk and cost of workplace incidents, injuries and disease / illness occurring.

Answering and scoring questions

The questions are grouped together in the assessment section under the relevant Chapters of the *Work Health and Safety Regulations 2012* (SA).

Each question is required to be rated either:

ZERO (0) = No evidence of conformance or action taken;

ONE (1) = Evidence of some action taken, i.e. partial conformance; or

TWO (2) = Fully conforms with requirement.

The Tool has been designed for businesses of all types and sizes to measure and verify their level of conformance with the *Work Health and Safety Regulations 2012* (SA), by scoring each question in the assessment. Once you have entered the name of your organisation, location, person(s) carrying out the assessment and date, it is simply a matter of going through each question and entering a score of 0, 1 or 2, based on the level of conformance with the question being asked. A drop down box containing these options is indicated by an arrow located at the bottom right hand corner of each scoring tab. A score of 0 (red) indicates that there is no evidence of conformance or action taken; a score of 1 (orange) indicates that some action has been taken, or there is some evidence of conformance; and a score of 2 (green) indicates that this requirement has been fully complied with. If you answer the assessment question as a 1 or 2 you should be able to complete the "Verification / Evidence and Comments" sections to:

- Prove it (e.g. refer to documented evidence to support your response; policy, procedure, records etc.)

- . Demonstrate that there has been appropriate consultation in development and implementation
- Demonstrate that there has been appropriate training, if required
- Demonstrate that the action is being implemented
- Demonstrate that you understand the requirements of the question.

Improvement Plan

An entry in the "Recommended Actions " section of the Assessment will automatically transfer into the attached Action Plan. This is then required to be completed by the person conducting a business or undertaking (PCBU) in terms of :

- 1) What action is to be taken to meet the requirement;
- 2) Who will be responsible to ensure this action occurs;
- 3) How long will be required to complete it; and
- 4) What the measure for success will be.

Once all of these details have been entered and the headings completed (including entering the business name, location and date), the Action Plan is now ready for implementation. Spaces in the Plan will need to be removed manually where no action is required. The document will now be ready to print with your updated details. This can be re-entered, modified and saved as many times as you like to create an ongoing record of the development and progress made on your Work Health and Safety regulatory compliance, whilst encouraging consultation and participation of workers.

It is important to note that it is up to the organisation to ensure that the actions, responsibilities and timeframes given are practical, achievable and meet the recommendations of the assessment. As circumstances change it may be necessary to adjust and alter the Plan on an ongoing basis. This will need to be done in consultation and agreement with the Officer who will be monitoring the progress being made.

Note: The *Work Health and Safety Regulations 2012* (SA) Gap Analysis Tool and Action Plan is a live document that needs to be constantly reviewed and updated as your organisation works towards full compliance.

Progressing through the program

The ultimate aim of your organisation should be to achieve 100% conformance with the requirements. It is recognised that, for smaller organisations in particular, this may not be achievable in the immediate future and that it may require some time to achieve this goal. The most important thing is that the organisation has a genuine commitment from top to bottom to build an Work Health and Safety culture that is based on continuous improvement, and that all significant hazards and risks are identified and eliminated, or at least controlled as far as is reasonably practicable. The Action Plan should be a reflection of this ongoing evolution and improvement.

Using the tool across several sites

For those organisations that have multiple sites or departments etc. this tool is ideal for regularly measuring conformance of each site for comparative purposes, or to get an overall picture of the organisation as a whole. This should also encourage those sites that do not measure up as well, to improve their performance and "close the gaps" identified, as well as "raising the bar" for the entire organisation in terms of Work Health and Safety Management Standards.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

This assessment tool addresses most key Work Health and Safety Regulation requirements, but not all. Compliance with this tool does not guarantee full compliance with all Work Health and Safety legal requirements, nor that the person conducting the business or undertaking (PCBU) is immune from enforcement action by the state Regulator.

The legislation mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

Any assessment report produced is intended for internal use only by the recipient, for the improvement of Work Health and Safety and should not be used for any other purpose whatsoever and should not be disseminated to any third party.

Any Work Health and Safety Improvement Plan produced with the assistance of MAQOHSC is compiled on the basis of information supplied. MAQOHSC cannot know whether the information supplied to it is complete and/or accurate.

MAQOHSC accepts no responsibility or liability for any acts done or omissions made pursuant to the Plan.

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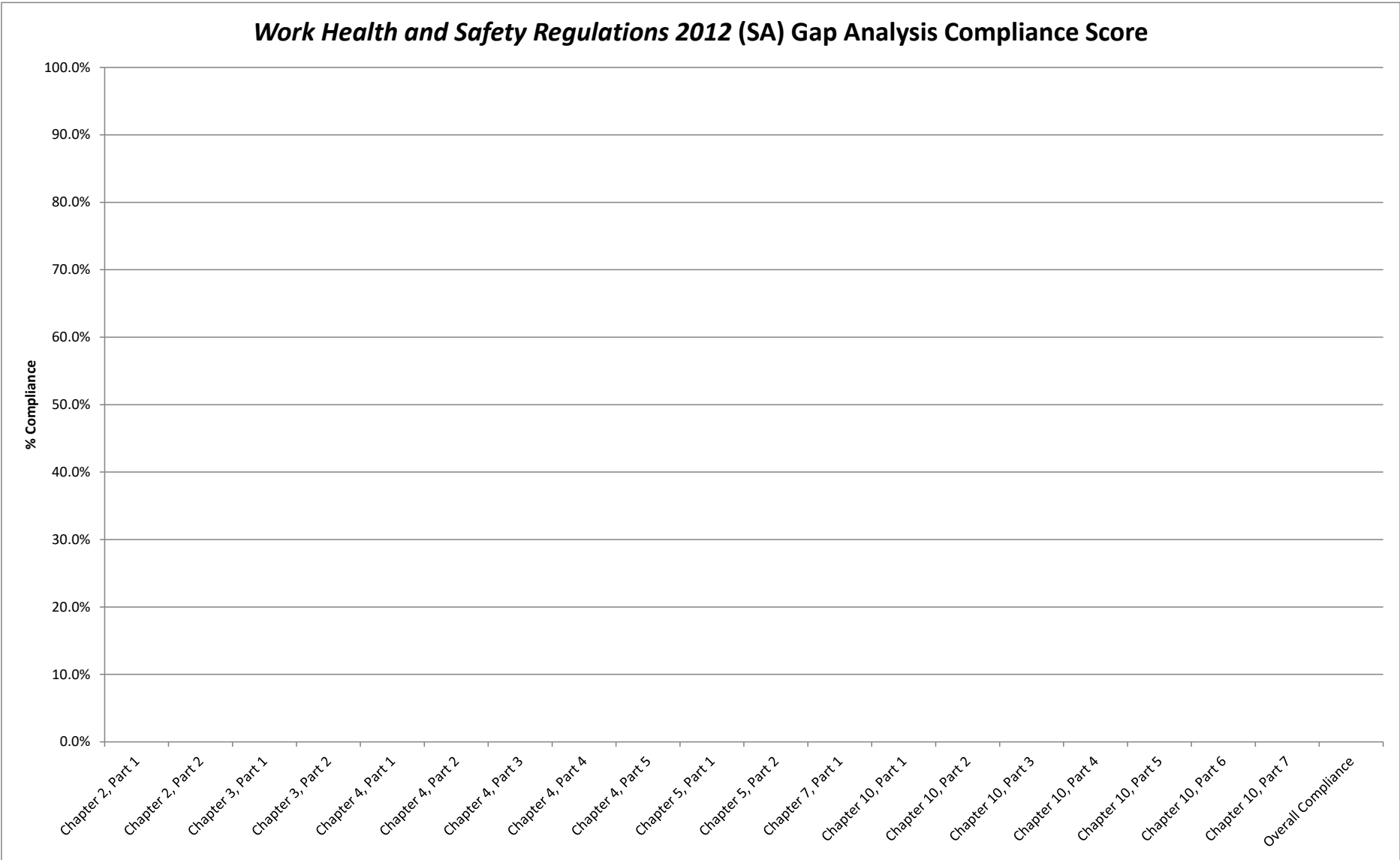
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Work Health and Safety Regulations 2012 (SA)	% Compliance
Chapter 2, Part 1	0.0%
Chapter 2, Part 2	0.0%
Chapter 3, Part 1	0.0%
Chapter 3, Part 2	0.0%
Chapter 4, Part 1	0.0%
Chapter 4, Part 2	0.0%
Chapter 4, Part 3	0.0%
Chapter 4, Part 4	0.0%
Chapter 4, Part 5	0.0%
Chapter 5, Part 1	0.0%
Chapter 5, Part 2	0.0%
Chapter 7, Part 1	0.0%
Chapter 10, Part 1	0.0%
Chapter 10, Part 2	0.0%
Chapter 10, Part 3	0.0%
Chapter 10, Part 4	0.0%
Chapter 10, Part 5	0.0%
Chapter 10, Part 6	0.0%
Chapter 10, Part 7	0.0%
Overall Compliance	0.0%



Work Health and Safety Regulations 2012 (SA) Gap Analysis Tool

Regulation	Title	Requirement	Conducted by:	Assisted by :	Date:	
Chapter 2, Representation and participation						
Part 1, Representation			Verification / Evidence	Comments	Compliance Score	Recommended Action
16	Negotiations for and determination of work groups	Negotiations for and determination of work groups and variations of work groups must be directed at ensuring that the workers are grouped in a way that: a) most effectively and conveniently enables the interests of the workers in relation to work health and safety to be represented; and b) has regard to the need for a health and safety representative for the work group to be readily accessible to each worker in the work group.				
18	Procedures for election of health and safety representatives	The person conducting the election must take all reasonable steps to ensure that the following procedures are complied with: a) each person conducting a business or undertaking in which a worker in the work group works is informed of the date on which the election is to be held as soon as practicable after the date is determined; b) all workers in the work group are given an opportunity to, nominate for the position of health and safety representative and vote in the election; and c) all workers in the work group and all relevant persons conducting a business or undertaking are informed of the outcome of the election.				
21	Training for health and safety representatives	A health and safety representative is entitled to attend any course of training approved by the regulator under the regulations and 5 days training under section 72(9)(a) of the WHS Act 2012 SA will constitute initial training for the purposes of sections 85(6) and 90(4) of the Act.			N/A	
Chapter 2, Part 2 Issue Resolution			Verification / Evidence	Comments	Compliance Score	Recommended Action
22	Agreed procedure—minimum requirements	A person conducting a business or undertaking at a workplace must ensure that the agreed procedure for issue resolution at the workplace is set out in writing and is communicated to all workers to whom the agreed procedure applies.				
Chapter 3, General risk and workplace management						
Part 1, Managing risks to health and safety			Verification / Evidence	Comments	Compliance Score	Recommended Action
34	Duty to identify hazards	A duty holder, in managing risks to health and safety, must identify reasonably foreseeable hazards that could give rise to risks to health and safety.				
35	Managing risks to health and safety	A duty holder, in managing risks to health and safety, must: a) eliminate risks to health and safety so far as is reasonably practicable; and b) if it is not reasonably practicable to eliminate risks to health and safety, minimise those risks so far as is reasonably practicable.				
36	Hierarchy of control measures	Information only				
37	Maintenance of control measures	A duty holder who implements a control measure to eliminate or minimise risks to health and safety must ensure that the control measure is, and is maintained so that it remains, effective, including by ensuring that the control measure is and remains; a) fit for purpose b) suitable for the nature and duration of the work c) installed, set up and used correctly.				
38	Review of control measures	A duty holder must review and, as necessary, revise control measures implemented under the regulations so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health or safety.				
Part 2 - General workplace management						
Division 1 - Information, training and instruction			Verification / Evidence	Comments	Compliance Score	Recommended Action
39	Provision of information, training and instruction	The person must ensure that information, training and instruction provided to a worker is suitable and adequate having regard to: a) the nature of the work carried out by the worker; and b) the nature of the risks associated with the work at the time the information, training or instruction is provided; and c) the control measures implemented.				

Division 3 - First aid			Verification / Evidence	Comments	Compliance Score	Recommended Action
42	Duty to provide first aid	1. A person conducting a business or undertaking at a workplace must ensure: a) the provision of first aid equipment for the workplace; and b) that each worker at the workplace has access to the equipment; and c) access to facilities for the administration of first aid.				
		2. A person conducting a business or undertaking at a workplace must ensure that: a) an adequate number of workers are trained to administer first aid at the workplace; or b) workers have access to an adequate number of other persons who have been trained to administer first aid.				
Division 4 - Emergency plans			Verification / Evidence	Comments	Compliance Score	Recommended Action
43	Duty to prepare, maintain and implement emergency plan	1. A person conducting a business or undertaking at a workplace must ensure that an emergency plan is prepared for the workplace, that provides for the following: a) emergency procedures, including - an effective response to an emergency, evacuation procedures, notifying emergency service organisations at the earliest opportunity, medical treatment and assistance and effective communication between the person authorised by the person conducting the business or undertaking to coordinate the emergency response and all persons at the workplace; b) testing of the emergency procedures, including the frequency of testing; c) information, training and instruction to relevant workers in relation to implementing the emergency procedures.				
		2. A person conducting a business or undertaking at a workplace must maintain the emergency plan for the workplace so that it remains effective.				
Division 5 - Personal protective equipment			Verification / Evidence	Comments	Compliance Score	Recommended Action
45	Provision to workers and use of personal protective equipment	2. The person conducting a business or undertaking who directs the carrying out of work must provide the personal protective equipment to workers at the workplace, unless the personal protective equipment has been provided by another person conducting a business or undertaking.				
		3. The person conducting the business or undertaking who directs the carrying out of work must ensure that personal protective equipment provided is: a) selected to minimise risk to health and safety, including by ensuring that the equipment is - suitable having regard to the nature of the work and any hazard associated with the work, a suitable size and fit and reasonably comfortable for the worker who is to use or wear it; b) maintained, repaired or replaced so that it continues to minimise risk to the worker who uses it, including by ensuring that the equipment is - clean and hygienic and in good working order; c) used or worn by the worker, so far as is reasonably practicable.				
		4. The person conducting a business or undertaking who directs the carrying out of work must provide the worker with information, training and instruction in the: a) proper use and wearing of personal protective equipment; and b) storage and maintenance of personal protective equipment.				
Division 6 - Remote or isolated work			Verification / Evidence	Comments	Compliance Score	Recommended Action
48	Remote or isolated work	2. In minimising risks to the health and safety of a worker associated with remote or isolated work, a person conducting a business or undertaking must provide a system of work that includes effective communication with the worker.				
Division 7 - Managing risks from airborne contaminants			Verification / Evidence	Comments	Compliance Score	Recommended Action
50	Monitoring airborne contaminant levels	1. A person conducting a business or undertaking at a workplace must ensure that air monitoring is carried out to determine the airborne concentration of a substance or mixture at the workplace to which an exposure standard applies if: a) the person is not certain on reasonable grounds whether or not the airborne concentration of the substance or mixture at the workplace exceeds the relevant exposure standard; or b) monitoring is necessary to determine whether there is a risk to health.				
		3. A person conducting a business or undertaking at a workplace must ensure that the results of air monitoring carried out under subregulation (1) are readily accessible to persons at the workplace who may be exposed to the substance or mixture.				
Division 9 - Storage of flammable or combustible substances			Verification / Evidence	Comments	Compliance Score	Recommended Action
53	Flammable and combustible material not to be accumulated	A person conducting a business or undertaking at a workplace must ensure that, if flammable or combustible substances are kept at the workplace, the substances are kept at the lowest practicable quantity for the workplace.				

Division 10 - Falling objects			Verification / Evidence	Comments	Compliance Score	Recommended Action
54	Management of risk of falling objects	A person conducting a business or undertaking at a workplace must manage, in accordance with Chapter 3 Part 1, risks to health and safety associated with an object falling on a person if the falling object is reasonably likely to injure the person.				
55	Minimising risk associated with falling objects	2. The person conducting the business or undertaking at a workplace must minimise the risk of an object falling on a person by providing adequate protection against the risk in accordance with the regulations.				
		3. The person provides adequate protection against the risk if the person provides and maintains a safe system of work, including: a) preventing an object from falling freely, so far as is reasonably practicable; or b) if it is not reasonably practicable to prevent an object from falling freely, providing, so far as is reasonably practicable, a system to arrest the fall of a falling object.				
Chapter 4, Hazardous work						
Part 1, Noise			Verification / Evidence	Comments	Compliance Score	Recommended Action
57	Managing risk of hearing loss from noise	2. A person conducting a business or undertaking at a workplace must ensure that the noise that a worker is exposed to at the workplace does not exceed the exposure standard for noise.				
58	Audiometric testing	1. This regulation applies in relation to a worker who is frequently required by the person conducting the business or undertaking to use personal protective equipment to protect the worker from the risk of hearing loss associated with noise that exceeds the exposure standard for noise.				
		2. The person conducting the business or undertaking who provides the personal protective equipment as a control measure must provide audiometric testing for the worker: a) within 3 months of the worker commencing the work; and b) in any event, at least every 2 years.				
Part 2, Hazardous manual tasks			Verification / Evidence	Comments	Compliance Score	Recommended Action
60	Managing risks to health and safety	A person conducting a business or undertaking must manage risks to health and safety relating to a musculoskeletal disorder associated with a hazardous manual tasks.				
Part 3 - Confined spaces						
Division 3 - Duties of person conducting business or undertaking			Verification / Evidence	Comments	Compliance Score	Recommended Action
65	Entry into confined space must comply with this Division	A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that a worker does not enter a confined space before this Division has been complied with in relation to that space.				
66	Managing risks to health and safety	1. A person conducting a business or undertaking must manage, in accordance with Chapter 3 Part 1, risks to health and safety associated with a confined space at a workplace including risks associated with entering, working in, on or in the vicinity of the confined space (including a risk of a person inadvertently entering the confined space).				
		2. A person conducting a business or undertaking must ensure that a risk assessment is conducted by a competent person for the purposes of subregulation (1).				
		3. The person must ensure that a risk assessment conducted under subregulation (2) is recorded in writing.				
		5. The person conducting a business or undertaking must ensure that a risk assessment under this regulation is reviewed and as necessary revised by a competent person to reflect any review and revision of control measures under Chapter 3 Part 1.				
67	Confined space entry permit	1. A person conducting a business or undertaking at a workplace must not direct a worker to enter a confined space to carry out work unless the person has issued a confined space entry permit for the work.				
		2. A confined space entry permit must: a) be completed by a competent person; and b) be in writing; and c) specify the following: the confined space to which the permit relates, the names of persons permitted to enter the space, the period of time during which the work in the space will be carried out, measures to control risk associated with the proposed work in the space; and d) contain space for an acknowledgement that work in the confined space has been completed and that all persons have left the confined space.				

		3. The control measures specified in a confined space permit must: a) be based on a risk assessment conducted under regulation 66; and b) include: control measures to be implemented for safe entry and details of the system of work provided under regulation 69.				
		4. The person conducting a business or undertaking must ensure that, when the work for which the entry permit was issued is completed: a) all workers leave the confined space; and b) the acknowledgement referred to in subregulation (2)(d) is completed by the competent person.				
68	Signage	1. A person conducting a business or undertaking must ensure that signs that comply with subregulation (2) are erected: a) immediately before work in a confined space commences and while the work is being carried out; and b) while work is being carried out in preparation for, and in the completion of, work in a confined space.				
		2. The signs must: a) identify the confined space; and b) inform workers that they must not enter the space unless they have a confined space entry permit; and c) be clear and prominently located next to each entry to the space.				
69	Communication and safety monitoring	A person conducting a business or undertaking must ensure that a worker does not enter a confined space to carry out work unless the person provides a system of work that includes: a) continuous communication with the worker from outside the space; and b) monitoring of conditions within the space by a standby person who is in the vicinity of the space and, if practicable, observing the work being carried out.				
70	Specific control—connected plant and services	1. A person conducting a business or undertaking must, so far as is reasonably practicable, eliminate any risk associated with work in a confined space in either of the following circumstances: a) the introduction of any substance or condition into the space from or by any plant or services connected to the space; b) the activation or energising in any way of any plant or services connected to the space.				
		2. If it is not reasonably practicable for the person to eliminate risk under subregulation (1), the person must minimise that risk so far as is reasonably practicable.				
71	Specific control—atmosphere	1. A person conducting a business or undertaking must ensure, in relation to work in a confined space that: a) purging or ventilation of any contaminant in the atmosphere of the space is carried out, so far as is reasonably practicable; and b) pure oxygen or gas mixtures with oxygen in a concentration exceeding 21% by volume are not used for purging or ventilation of any airborne contaminant in the space.				
		2. The person must ensure that, while work is being carried out in a confined space: a) the atmosphere of the space has a safe oxygen level; or b) if it is not reasonably practicable to comply with paragraph (a) and the atmosphere in the space has an oxygen level less than 19.5% by volume—any worker carrying out work in the space is provided with air supplied respiratory equipment.				
72	Specific control—flammable gases and vapours	1. A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that while work is being carried out in a confined space, the concentration of any flammable gas, vapour or mist in the atmosphere of the space is less than 5% of it's LEL.				
73	Specific control—fire and explosion	A person conducting a business or undertaking must ensure that an ignition source is not introduced into a confined space (from outside or within the space) if there is a possibility of the ignition source causing a fire or explosion in the place.				
74	Emergency procedures	1. A person conducting a business or undertaking must: a) establish first aid procedures and rescue procedures to be followed in the event of an emergency in a confined space; and b) ensure that the procedures are practised as necessary to ensure that they are efficient and effective.				
		2. The person must ensure that first aid and rescue procedures are initiated from outside the confined space as soon as practicable in an emergency.				
		3. The person must ensure, in relation to any confined space, that: a) the entry and exit openings of the confined space are large enough to allow emergency access; and b) the entry and exit openings of the space are not obstructed; and c) plant, equipment and personal protective equipment provided for first aid or emergency rescue are maintained in good working order.				

76	Information, training and instruction for workers	1. A person conducting a business or undertaking must ensure that relevant workers are provided with suitable and adequate information, training and instruction in relation to the following: a) the nature of all hazards relating to a confined space; b) the need for, and the appropriate use of, control measures to control risks to health and safety associated with those hazards; c) the selection, fit, use, wearing, testing, storage and maintenance of any person protective equipment; d) the contents of any confined space entry permit that may be issued in relation to work carried out by the worker in a confined space; e) emergency procedures.				
		2. The person must ensure that a record of all training provided to a worker under this regulation is kept for 2 years.				
77	Confined space entry permit and risk assessment must be kept	2. Subject to subregulation (3), the person must keep: a) a copy of the risk assessment until at least 28 days after the work to which it relates is completed; and b) a copy of the confined space entry permit at least until the work to which it relates is completed.				
Part 4, Falls			Verification / Evidence	Comments	Compliance Score	Recommended Action
78	Management of risk of fall	1. A person conducting a business or undertaking at a workplace must manage, in accordance with Chapter 3 Part 1, risks to health and safety associated with a fall by a person from one level to another that is reasonably likely to cause injury to the person or any other person.				
		3. A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that any work that involves the risk of a fall to which subregulation (1) applies is carried out on the ground or on a solid construction.				
79	Specific requirements to minimise risk of fall	2. The person must minimise the risk of a fall by providing adequate protection against the risk in accordance with the regulations.				
		3. The person provides adequate protection against the risk if the person provides and maintains a safe system of work, including by: a) providing a fall prevention device if it is reasonably practicable to do so; or b) if it is not reasonably practicable to provide a fall prevention device, providing a work positioning system; or c) if it is not reasonably practicable to comply with either paragraph (a) or (b), providing a fall arrest system, so far as is reasonably practicable.				
80	Emergency and rescue procedures	2. Without limiting regulation 79, the person must establish emergency procedures, including rescue procedures, in relation to the use of the fall arrest system.				
		3. The person must ensure that the emergency procedures are tested so that they are effective.				
		4. The person must provide relevant workers with suitable and adequate information, training and instruction in relation to the emergency procedures.				
Part 5 - High risk work						
Division 1 - Licensing of high risk work						
Subdivision 1, Requirement to be licensed			Verification / Evidence	Comments	Compliance Score	Recommended Action
81	Licence required to carry out high risk work	A person must not carry out a class of high risk work unless the person holds a high risk work licence for that class of high risk work except as provided in regulation 82.				
85	Evidence of licence—duty of person conducting business or undertaking	A person conducting a business or undertaking at a workplace must not direct or allow a worker to carry out high risk work for which a high risk work licence is required unless the person sees written evidence provided by the worker that the worker has the relevant high risk work licence for that work.				
Division 2 - General risk management			Verification / Evidence	Comments	Compliance Score	Recommended Action
147	Risk management	A person conducting a business or undertaking at a workplace must manage risks to health and safety associated with electrical risks at the workplace, in accordance with Chapter 3 Part 1.				
Division 3 - Electrical equipment and electrical installations			Verification / Evidence	Comments	Compliance Score	Recommended Action
149	Unsafe electrical equipment	1. A person conducting a business or undertaking at a workplace must ensure that any unsafe electrical equipment at the workplace: a) is disconnected (or isolated) from its electricity supply; and b) once disconnected (or isolated) - is not reconnected until it is repaired or tested and found to be safe or is replaced or permanently removed from use.				

150	Inspection and testing of electrical equipment	1. A person conducting a business or undertaking at a workplace must ensure that electrical equipment is regularly inspected and tested by a competent person if the electrical equipment is: a) supplied with electricity through an electrical socket outlet; and b) used in an environment in which the normal use of electrical equipment exposes the equipment to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span, including conditions that involve exposure to moisture, heat, vibration, mechanical damage, corrosive chemicals or dust.				
		3. The person must ensure that a record of any testing carried out under subregulation (1) is kept until the electrical equipment is: a) next tested; or b) permanently removed from the workplace or disposed of.				
		4. The record of testing: a) must specify the following: the name of the person who carried out the testing, the date of the testing, the outcome of the testing and the date on which the next testing must be carried out; b) may be in the form of a tag attached to the electrical equipment tested.				
151	Untested electrical equipment not to be used	A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that electrical equipment is not used if the equipment: a) is required to be tested under regulation 150; and b) has not been tested.				
Division 4 - Electrical work on energised electrical equipment			Verification / Evidence	Comments	Compliance Score	Recommended Action
154	Electrical work on energised electrical equipment—prohibited	1. A person conducting a business or undertaking must ensure that electrical work is not carried out on electrical equipment while the equipment is energised.				
155	Duty to determine whether equipment is energised	A person conducting a business or undertaking must ensure that, before electrical work is carried out on electrical equipment, the equipment is tested by a competent person to determine whether or not it is energised.				
		2. The person conducting a business or undertaking must ensure that: a) each exposed part is treated as energised until it is isolated and determined not to be energised; and b) each high-voltage exposed part is earthed after being de-energised.				
156	De-energised equipment must not be inadvertently re-energised	A person conducting a business or undertaking must ensure that electrical equipment that has been de-energised to allow electrical work to be carried out on it is not inadvertently re-energised while the work is being carried out.				
157	Electrical work on energised electrical equipment—when permitted	1. A person conducting a business or undertaking must ensure that electrical work on energised electrical equipment is not carried out unless: a) it is necessary in the interests of health and safety that the electrical work is carried out on the equipment while the equipment is energised; or b) it is necessary that the electrical equipment to be worked on is energised in order for the work to be carried out properly; or c) it is necessary for the purposes of testing required under regulation 155; or d) there is no reasonable alternative means of carrying out the work.				
		2. The electrical work that may be carried out under subregulation (1)(a), (b) and (d) may include testing of the energised electrical equipment.				
158	Preliminary steps	1. A person conducting a business or undertaking must ensure the following, before electrical work on energised electrical equipment commences: a) a risk assessment is conducted in relation to the proposed electrical work; b) the area where the electrical work is to be carried out is clear of obstructions so as to allow for easy access and exit; c) the point at which the electrical equipment can be disconnected or isolated from its electricity supply is: clearly marked or labelled, clear of obstructions so as to allow for easy access and exit by the worker who is to carry out the electrical work or any other competent person and capable of being operated quickly; d) the person authorises the electrical work after consulting with the person with management or control of the workplace.				
		2. For the purposes of subregulation (1)(a), the risk assessment must be: a) conducted by a competent person; and b) recorded.				
159	Unauthorised access to equipment being worked on	A person conducting a business or undertaking must ensure that only persons authorised by the person conducting the business or undertaking enter the immediate area in which electrical work on energised electrical equipment is being carried out.				

Division 6 - Residual current devices			Verification / Evidence	Comments	Compliance Score	Recommended Action
164	Use of socket outlets in hostile operating environment	1. This regulation applies in the following circumstances: a) electrical equipment is used in an environment in which the normal use of electrical equipment exposes the equipment to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span, including conditions that involve exposure to moisture, heat, vibration, mechanical damage, corrosive chemicals or dust; b) electrical equipment is moved between different locations in circumstances where damage to the equipment or to a flexible electricity supply cord is reasonably likely; c) electrical equipment is frequently moved during its normal use; d) electrical equipment forms part of, or is used in connection with, an amusement device.				
		2. In a circumstance set out in subregulation (1), a person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that any electrical risk associated with the supply of electricity to the electrical equipment through a socket outlet is minimised by the use of an appropriate residual current device.				
		3. Without limiting subregulation (2), the residual current device must have a tripping current that does not exceed 30 milliamps if electricity is supplied to the equipment through a socket outlet not exceeding 20 amps.				
164A	Provision of R.C.D.s	1. Subject to complying with any requirement of a preceding regulation under this Division, any risk associated with the supply of electricity through a socket outlet must be minimised so far as is reasonably practicable by the use of an R.C.D.				
		2. If the supply of electricity in any situation in a workplace is through a socket outlet not exceeding 20 amps to: a) hand held electrical plant; or b) electrical plant that is moved while in operation; or c) electrical plant that is moved between operations in circumstances where damage to the electrical plant or to a flexible supply cord could reasonably occur; or d) electrical plant where electrical safety could be affected by the operating environment, the electrical plant must be protected by an R.C.D. with a tripping current not greater than 30 milliamps.				
165	Testing of residual current devices	1. A person with management or control of a workplace must take all reasonable steps to ensure that residual current devices used at the workplace are tested regularly by a competent person to ensure that the devices are operating effectively.				
		2. The person must keep a record of all testing of a residual current device (other than any testing conducted daily) until the earlier of the following occurs: a) the device is next tested; b) the device is permanently removed from use.				
Division 7 - Overhead and underground electric lines			Verification / Evidence	Comments	Compliance Score	Recommended Action
166	Duty of person conducting a business or undertaking	1. A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that no person, plant or thing at the workplace comes within an unsafe distance of an overhead or underground electric line.				
		2. If it is not reasonably practicable to ensure the safe distance of a person, plant or thing from an overhead or underground electric line, the person conducting the business or undertaking at the workplace must ensure that: a) a risk assessment is conducted in relation to the proposed work; and b) control measures implemented are consistent with: the risk assessment and if an electricity supply authority is responsible for the electric line, any requirements of the authority.				
Chapter 5, Plant and structures						
Part 1 - General duties for plant and structures						
Division 7 - General duties of a person conducting a business or undertaking involving the management or control of plant						
Note		A person with management or control of plant at a workplace is the person conducting a business or undertaking at the workplace to the extent that the business or undertaking involves the management or control of plant in whole or in part at the workplace. See the definition of person with management or control of plant at a workplace in regulation 5 and section 21 of the Act.				
Subdivision 1, Management of risks			Verification / Evidence	Comments	Compliance Score	Recommended Action
203	Management of risks to health and safety	A person with management or control of plant at a workplace must manage risks to health and safety associated with plant, in accordance with Chapter 3 Part 1.				

Subdivision 2, Additional control measures for general plant			Verification / Evidence	Comments	Compliance Score	Recommended Action
204	Control of risks arising from installation or commissioning	1. A person with management or control of plant at a workplace must not commission the plant unless the person has established that the plant is, so far as is reasonably practicable, without risks to the health and safety of any person.				
		2. A person with management or control of plant at a workplace must not decommission or dismantle the plant unless the decommissioning or dismantling can be carried out, so far as is reasonably practicable, without risks to the health and safety of any person.				
		3. A person with management or control of plant at a workplace must ensure that a person who installs, assembles, constructs, commissions or decommissions or dismantles the plant is a competent person.				
		4. A person with management or control of plant at a workplace must ensure that a person who installs, assembles, constructs, commissions or decommissions or dismantles the plant is provided with the available information for eliminating or minimising risks to health or safety.				
		5. A person with management or control of plant at a workplace must ensure that the processes for the installation, construction, commissioning, decommissioning and dismantling of plant include inspections that ensure, so far as is reasonably practicable, that risks associated with these activities are monitored.				
205	Preventing unauthorised alterations to or interference with plant	The person with management or control of plant at a workplace must, so far as is reasonably practicable, prevent alterations to or interference with the plant that are not authorised by the person.				
206	Proper use of plant and controls	1. The person with management or control of plant at a workplace must take all reasonable steps to ensure that plant is used only for the purpose for which it was designed, unless the person has determined that the proposed use does not increase the risk to health or safety.				
		2. In determining whether or not a proposed use of plant increases the risk to health or safety, the person with management or control of the plant must ensure that the risk associated with the proposed use is assessed by a competent person.				
		3. The person with management or control of plant at a workplace must take all reasonable steps to ensure that all health and safety features and warning devices (including guarding, operational controls, emergency stops and warning devices) are used in accordance with the instructions and information provided by that person under regulation 39.				
207	Plant not in use	The person with management or control of plant at a workplace must ensure, so far as is reasonably practicable, that plant that is not in use is left in a state that does not create a risk to the health or safety of any person.				
208	Guarding	2. The person with management or control of the plant must ensure that— (a) if access to the area of the plant requiring guarding is not necessary during operation, maintenance or cleaning of the plant, the guarding is a permanently fixed physical barrier; or (b) if access to the area of the plant requiring guarding is necessary during operation, maintenance or cleaning of the plant, the guarding is an interlocked physical barrier that allows access to the area being guarded at times when that area does not present a risk and prevents access to that area at any other time; or (c) if it is not reasonably practicable to use guarding referred to in paragraph (a) or (b), the guarding used is a physical barrier that can only be altered or removed by the use of tools; or (d) if it is not reasonably practicable to use guarding referred to in paragraph (a), (b) or paragraph (c), the guarding includes a presence-sensing safeguarding system that eliminates any risk arising from the area of the plant requiring guarding while a person or any part of a person is in the area being guarded.				
		3. The person with management or control of the plant must ensure that the guarding— (a) is of solid construction and securely mounted so as to resist impact or shock; and (b) makes bypassing or disabling of the guarding, whether deliberately or by accident, as difficult as is reasonably practicable; and (c) does not create a risk in itself; and (d) is properly maintained.				
		4. If the plant to be guarded contains moving parts that may break or cause workpieces to be ejected from the plant, the person with management or control of the plant must ensure, so far as is reasonably practicable, that the guarding will control any risk from those broken or ejected parts and workpieces.				
		5. Despite anything to the contrary in this regulation, the person with management or control of the plant must ensure— (a) that the guarding is of a kind that can be removed to allow maintenance and cleaning of the plant at any time that the plant is not in normal operation; and (b) if guarding is removed, that so far as is reasonably practicable, the plant cannot be restarted unless the guarding is replaced.				

209	Guarding and insulation from heat and cold	The person with management or control of plant at a workplace must ensure, so far as is reasonably practicable, that any pipe or other part of the plant associated with heat or cold is guarded or insulated so that the plant is without risks to the health and safety of any person.				
210	Operational controls	1. The person with management or control of plant at a workplace must ensure that any operator's controls are— (a) identified on the plant so as to indicate their nature and function and direction of operation; and (b) located so as to be readily and conveniently operated by each person using the plant; and (c) located or guarded to prevent unintentional activation; and (d) able to be locked into the "off" position to enable the disconnection of all motive power.				
		2. If the need for plant to be operated during maintenance or cleaning cannot be eliminated, the person with management or control of the plant at a workplace must ensure that the operator's controls— (a) permit operation of the plant while a person is undertaking the maintenance or cleaning of the plant; and (b) while the plant is being maintained or cleaned, either— (i) cannot be operated by any person other than the person who is carrying out the maintenance or cleaning of the plant; or (ii) if subparagraph (i) cannot be complied with because the plant must be operated by a person other than the person who is carrying out the maintenance or cleaning of the plant, cannot be operated except by a person authorised by the person with management or control of the plant for that purpose; and (c) will allow operation of the plant in such a way that any risk associated with the activities in relation to any person who is carrying out the maintenance or cleaning— (i) is eliminated so far as is reasonably practicable; or (ii) if it is not reasonably practicable to eliminate the risk, is minimised so far as is reasonably practicable.				
211	Emergency stops	1. If plant at a workplace is designed to be operated or attended by more than 1 person and more than 1 emergency stop control is fitted, the person with management or control of plant at the workplace must ensure that the multiple emergency stop controls are of the "stop and lock-off" type so that the plant cannot be restarted after an emergency stop control has been used unless that emergency stop control is reset.				
		2. If the design of plant at a workplace includes an emergency stop control, the person with management or control of the plant at the workplace must ensure that— (a) the stop control is prominent, clearly and durably marked and immediately accessible to each operator of the plant; and (b) any handle, bar or push button associated with the stop control is coloured red; and (c) the stop control cannot be adversely affected by electrical or electronic circuit malfunction.				
212	Warning devices	2. The person with management or control of the plant must ensure that the device is positioned on the plant to ensure that the device will work to best effect.				
213	Maintenance and inspection of plant	1. The person with management or control of plant at a workplace must ensure that the maintenance, inspection and, if necessary, testing of the plant is carried out by a competent person.				
		2. The maintenance, inspection and testing must be carried out— (a) in accordance with the manufacturer's recommendations, if any; or (b) if there are no manufacturer's recommendations, in accordance with the recommendations of a competent person; or (c) in relation to inspection, if it is not reasonably practicable to comply with paragraph (a) or (b) annually.				
Subdivision 3, Additional control measures for certain plant			Verification / Evidence	Comments	Compliance Score	Recommended Action
Note		The person with management or control of plant at a workplace is the person conducting a business or undertaking at a workplace to the extent that the business or undertaking involves the management or control of plant in whole or in part at the workplace. See the definition of person with management or control of plant at a workplace in regulation 5 and section 21 of the Act.				

214	Powered mobile plant—general control of risk	The person with management or control of powered mobile plant at a workplace must in accordance with Chapter 3 Part 1, manage risks to health and safety associated with the following: (a) the plant overturning; (b) things falling on the operator of the plant; (c) the operator being ejected from the plant; (d) the plant colliding with any person or thing; (e) mechanical failure of pressurised elements of plant that may release fluids that pose a risk to health and safety.				
215	Powered mobile plant—specific control measures	2. The person must ensure, so far as is reasonably practicable, that a suitable combination of operator protective devices for the plant is provided, maintained and used.				
		3. The person must ensure, so far as is reasonably practicable, that no person other than the operator rides on the plant unless the person is provided with a level of protection that is equivalent to that provided to the operator.				
		4. The person must ensure that the plant does not collide with pedestrians or other powered mobile plant.				
		5. Without limiting subregulation (4), if there is a possibility of the plant colliding with pedestrians or other powered mobile plant, the person must ensure that the plant has a warning device that will warn persons who may be at risk from the movement of the plant.				
218	Industrial lift trucks	1. The person with management or control of an industrial lift truck at a workplace must ensure that the truck is— (a) equipped with lifting attachments that are suitable for the load to be lifted or moved by the truck; and (b) operated in a manner that ensures that the risks to the operator of the truck and other persons at or near the workplace that arise from systems of work and the environment in which the truck is used— (i) are eliminated so far as is reasonably practicable; or (ii) if it is not reasonably practicable to eliminate the risks, are minimised so far as is reasonably practicable.				
		2. The person with management or control of an industrial lift truck at a workplace must ensure that the truck is not used to carry a passenger unless— (a) the truck is designed to carry a seated passenger; and (b) the passenger seat is— (i) fitted with suitable seat restraints; and (ii) located within the zone of protection that is provided by the operator protective device required to be fitted to the industrial lift truck.				
		3. The person with management or control of an industrial lift truck at a workplace must take all reasonable steps to ensure that a passenger in an industrial lift truck is seated in a seat that complies with subregulation (2)(b).				
219	Plant that lifts or suspends loads	2. The person with management or control of plant at a workplace must ensure, so far as is reasonably practicable, that the plant used is specifically designed to lift or suspend the load.				
		3. If it is not reasonably practicable to use plant that is specifically designed to lift or suspend the load, the person must ensure that— (a) the plant does not cause a greater risk to health and safety than if specifically designed plant were used; and (b) if the plant is lifting or suspending persons, the use of the plant complies with regulation 220.				
		4. The person must ensure that the lifting and suspending is carried out— (a) with lifting attachments that are suitable for the load being lifted or suspended; and (b) within the safe working limits of the plant.				
		5. The person must ensure, so far as is reasonably practicable, that no loads are suspended or travel over a person unless the plant is specifically designed for that purpose.				
		6. The person must ensure, so far as is reasonably practicable, that loads are lifted or suspended in a way that ensures that the load remains under control during the activity.				
		7. The person must ensure, so far as is reasonably practicable, that no load is lifted simultaneously by more than 1 item of plant unless the method of lifting ensures that the load placed on each item of plant does not exceed the design capacity of the plant.				

220	Exception—Plant not specifically designed to lift or suspend a person	For the purposes of regulation 219(3)(b), the person with management or control of the plant at a workplace must ensure that— (a) the persons are lifted or suspended in a work box that is securely attached to the plant; and (b) the persons in the work box remain substantially within the work box while they are being lifted or suspended; and (c) if there is a risk of a person falling from a height, a safety harness is provided and worn by the person in order to prevent, so far as is reasonably practicable, injury to the person as a result of the fall; and (d) means are provided by which the persons being lifted or suspended can safely exit from the plant in the event of a failure in its normal operation.				
224	Pressure equipment	1. The person with management or control of pressure equipment at a workplace must ensure that— (a) the equipment is inspected on a regular basis by a competent person; and (b) any gas cylinder that is inspected is marked with a current inspection mark showing the date of the most recent inspection.				
225	Scaffolds	2. The person with management or control of a scaffold at a workplace must ensure that the scaffold is not used unless the person receives written confirmation from a competent person who has inspected the scaffold that construction of the scaffold has been completed.				
		3. The person with management or control of a scaffold at a workplace must ensure that the scaffold and its supporting structure are inspected by a competent person— (a) before use of the scaffold is resumed after an incident occurs that may reasonably be expected to affect the stability of the scaffold; and (b) before use of the scaffold is resumed after repairs; and (c) at least every 30 days.				
		4. If an inspection indicates that a scaffold at a workplace or its supporting structure creates a risk to health or safety, the person with management or control of the scaffold must ensure that— (a) any necessary repairs, alterations and additions are made or carried out; and (b) the scaffold and its supporting structure are inspected again by a competent person before use of the scaffold is resumed.				
		5. The person with management or control of a scaffold at a workplace must ensure that unauthorised access to the scaffold is prevented while the scaffold is incomplete or unattended.				
226	Plant with presence-sensing safeguarding system—records	1. The person with management or control of plant with a presence sensing safeguarding system at a workplace must keep a record of safety integrity tests, inspections, maintenance, commissioning, decommissioning, dismantling and alterations of the plant for the period set out in subregulation (2).				
		2. The record must be kept for— (a) 5 years unless paragraph (b) applies; or (b) the life of the plant or until the person relinquishes control of the plant if the plant is registered plant or has been altered.				
		3. The person must keep the record available for inspection under the Act.				

Part 2 - Additional duties relating to registered plant and plant designs

Division 4 - Duties of a person conducting a business or undertaking involving the management or control of plant

Subdivision 1, Control measures for registered plant			Verification / Evidence	Comments	Compliance Score	Recommended Action
235	Major inspection of registered mobile cranes and tower cranes	2. The person must ensure that a major inspection of the crane is carried out by, or under the supervision of, a competent person— (a) at the end of the design life recommended by the manufacturer for the crane; or (b) if there are no manufacturer's recommendations—in accordance with the recommendations of a competent person; or (c) if it is not reasonably practicable to comply with paragraph (a) or (b)—every 10 years from the date that the crane was first commissioned or first registered, whichever occurred first.				
237	Records of plant	2. The person with management or control of the plant at a workplace must keep a record of all tests, inspections, maintenance, commissioning, decommissioning, dismantling and alterations of the plant for the period set out in subregulation (3).				
		3. The record must be kept for the period that the plant is used or until the person relinquishes control of the plant.				

Chapter 7, Hazardous chemicals					
Part 1 - Hazardous chemicals					
Division 2 - Obligations relating to safety data sheets and other matters					
Subdivision 3, Obligations of persons conducting businesses or undertakings			Verification / Evidence	Comments	Compliance Score Recommended Action
341	Labelling hazardous chemicals—general requirement	A person conducting a business or undertaking at a workplace must ensure that a hazardous chemical used, handled or stored at the workplace is correctly labelled in accordance with regulation 335.			
342	Labelling hazardous chemicals—containers	1. A person conducting a business or undertaking at a workplace must ensure that a hazardous chemical is correctly labelled in accordance with regulation 335 if the hazardous chemical is— (a) manufactured at the workplace; or (b) transferred or decanted from its original container at the workplace.			
		2. A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that a container that stores a hazardous chemical is correctly labelled in accordance with regulation 335 while the container contains the hazardous chemical.			
		3. A person conducting a business or undertaking at a workplace must ensure that a container labelled for a hazardous chemical is used only for the use, handling or storage of the hazardous chemical.			
343	Labelling hazardous chemicals—pipe work	A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that a hazardous chemical in pipe work is identified by a label, sign or another way on or near the pipe work.			
344	Person conducting business or undertaking to obtain and give access to safety data sheets	1. A person conducting a business or undertaking at a workplace must obtain the current safety data sheet for a hazardous chemical prepared in accordance with these regulations from the manufacturer, importer or supplier of the hazardous chemical in the following circumstances: (a) either— (i) not later than when the hazardous chemical is first supplied for use at the workplace; or (ii) if the person is not able to obtain the safety data sheet under subparagraph (i)—as soon as practicable after the hazardous chemical is first supplied to the workplace but before the hazardous chemical is used at the workplace; (b) if the safety data sheet for the hazardous chemical is amended either— (i) not later than when the hazardous chemical is first supplied to the workplace after the safety data sheet is amended; or (ii) if the person is not able to obtain the amended safety data sheet under subparagraph (i)—as soon as practicable after the hazardous chemical is first supplied to the workplace after the safety data sheet is amended and before the hazardous chemical supplied is used at the workplace.			
		2. The hazardous chemical is taken to be first supplied to a workplace if the supply is the first supply of the hazardous chemical to the workplace for 5 years.			
		3. The person must ensure that the current safety data sheet for the hazardous chemical is readily accessible to— (a) a worker who is involved in using, handling or storing the hazardous chemical at the workplace; and (b) an emergency service worker, or anyone else, who is likely to be exposed to the hazardous chemical at the workplace.			
		6. The person must ensure that the current safety data sheet for the hazardous chemical is readily accessible to a person at the workplace if the person— (a) is likely to be affected by the hazardous chemical; and (b) asks for the safety data sheet.			
Division 3 - Register and manifest of hazardous chemicals					
Subdivision 1, Hazardous chemicals register			Verification / Evidence	Comments	Compliance Score Recommended Action
346	Hazardous chemicals register	1. A person conducting a business or undertaking at a workplace must ensure that— (a) a register of hazardous chemicals used, handled or stored at the workplace is prepared and kept at the workplace; and (b) the register is maintained to ensure the information in the register is up to date.			
		2. The register must include— (a) a list of hazardous chemicals used, handled or stored; and (b) the current safety data sheet for each hazardous chemical listed.			

		3. The person must ensure that the register is readily accessible to— (a) a worker involved in using, handling or storing a hazardous chemical; and (b) anyone else who is likely to be affected by a hazardous chemical at the workplace.				
Division 5 - Control of risk—obligations of persons conducting businesses or undertakings						
Subdivision 1, General obligations relating to management of risk			Verification / Evidence	Comments	Compliance Score	Recommended Action
351	Management of risks to health or safety	2. In managing risks the person must have regard to the following: (a) the hazardous properties of the hazardous chemical; (b) any potentially hazardous chemical or physical reaction between the hazardous chemical and another substance or mixture, including a substance that may be generated by the reaction; (c) the nature of the work to be carried out with the hazardous chemical; (d) any structure, plant or system of work— (i) that is used in the use, handling, generation or storage of the hazardous chemical; or (ii) that could interact with the hazardous chemical at the workplace.				
352	Review of control measures	In addition to the circumstances in regulation 38, a person conducting a business or undertaking at a workplace must ensure that any measures implemented to control risks in relation to a hazardous chemical at the workplace are reviewed and as necessary revised in any of the following circumstances: (a) following any change to the safety data sheet for the hazardous chemical or the register of hazardous chemicals; (b) if the person obtains a health monitoring report for a worker under Division 6 that contains— (i) test results that indicate that the worker has been exposed to the hazardous chemical and has an elevated level of metabolites in his or her body for that hazardous chemical; or (ii) any advice that test results indicate that the worker may have contracted a disease, injury or illness as a result of carrying out the work using, handling, generating or storing the hazardous chemical that triggered the requirement for health monitoring; or (iii) any recommendation that the person conducting the business or undertaking take remedial measures, including whether the worker can continue to carry out the work using, handling, generating or storing the hazardous chemical that triggered the requirement for health monitoring; (c) if monitoring carried out under regulation 50 determines that the airborne concentration of the hazardous chemical at the workplace exceeds the relevant exposure standard; (d) at least once every 5 years.				
353	Safety signs	2. A person conducting a business or undertaking at the workplace must display a safety sign at the workplace to— (a) warn of a particular hazard associated with the hazardous chemicals; or (b) state the responsibilities of a particular person in relation to the hazardous chemicals.				
		3. The person must ensure that the safety sign is— (a) located next to the hazard; and (b) clearly visible to a person approaching the hazard.				
354	Identification of risk of physical or chemical reaction	1. A person conducting a business or undertaking at a workplace must identify any risk of a physical or chemical reaction in relation to a hazardous chemical used, handled, generated or stored at a workplace.				
		3. A person conducting a business or undertaking at a workplace must take all reasonable steps to ensure that a hazardous chemical is used, handled, generated or stored so as not to contaminate food, food packaging or personal use products.				
355	Specific control—fire and explosion	A person conducting a business or undertaking at a workplace must, if there is a possibility of fire or explosion in a hazardous area being caused by an ignition source being introduced into the area, ensure that the ignition source is not introduced into the area (from outside or within the space).				
356	Keeping hazardous chemicals stable	1. A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that a hazardous chemical used, handled or stored at the workplace does not become unstable, decompose or change so as to— (a) create a hazard that is different from the hazard originally created by the hazardous chemical; or (b) significantly increase the risk associated with any hazard in relation to the hazardous chemical.				

Subdivision 2, Spills and damage			Verification / Evidence	Comments	Compliance Score	Recommended Action
357	Containing and managing spills	1. A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that where there is a risk from a spill or leak of a hazardous chemical in a solid or liquid form, provision is made in each part of the workplace where the hazardous chemical is used, handled, generated or stored for a spill containment system that contains within the workplace any part of the hazardous chemical that spills or leaks, and any resulting effluent.				
		2. The person must ensure that the spill containment system does not create a hazard by bringing together different hazardous chemicals that are not compatible.				
		3. The person must ensure that the spill containment system provides for the cleanup and disposal of a hazardous chemical that spills or leaks, and any resulting effluent.				
358	Protecting hazardous chemicals from damage	A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that containers of hazardous chemicals and any associated pipe work or attachments are protected against damage caused by an impact or excessive loads.				
Subdivision 3, Emergency plans and safety equipment			Verification / Evidence	Comments	Compliance Score	Recommended Action
359	Fire protection and firefighting equipment	1. A person conducting a business or undertaking at a workplace must ensure the following: (a) the workplace is provided with fire protection and firefighting equipment that is designed and built for the types of hazardous chemicals at the workplace in the quantities in which they are used, handled, generated or stored at the workplace, and the conditions under which they are used, handled, generated or stored, having regard to— (i) the fire load of the hazardous chemicals; and (ii) the fire load from other sources; and (iii) the compatibility of the hazardous chemicals with other substances and mixtures at the workplace; (b) the fire protection and firefighting equipment is compatible with firefighting equipment used by the primary emergency service organisations; (c) the fire protection and firefighting equipment is properly installed, tested and maintained; (d) a dated record is kept of the latest testing results and maintenance until the next test is conducted.				
360	Emergency equipment	A person conducting a business or undertaking at a workplace that uses, handles, generates or stores hazardous chemicals must ensure that equipment is always available at the workplace for use in an emergency.				
Subdivision 4, Storage and handling systems			Verification / Evidence	Comments	Compliance Score	Recommended Action
363	Control of risks from storage or handling systems	1. A person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that a system used at the workplace for the use, handling or storage of hazardous chemicals— (a) is used only for a purpose for which it was designed, manufactured, modified, supplied or installed; and (b) is operated, tested, maintained, installed, repaired and decommissioned having regard to the health and safety of workers and other persons at the workplace.				
		2. The person must ensure that sufficient information, training and instruction is given to a person who operates, tests, maintains or decommissions a system used at a workplace for the use, handling or storage of hazardous chemicals for the activity to be carried out safely.				
364	Containers for hazardous chemicals used, handled or stored in bulk	A person conducting a business or undertaking at a workplace must ensure that a container in which a hazardous chemical is used, handled or stored in bulk and any associated pipe work or attachments— (a) have stable foundations and supports; and (b) are secured to the foundations and supports to prevent any movement between the container and the associated pipe work or attachments to prevent— (i) damage to the container, the associated pipe work or attachments; and (ii) a notifiable incident.				
Division 6 - Health monitoring			Verification / Evidence	Comments	Compliance Score	Recommended Action
368	Duty to provide health monitoring	A person conducting a business or undertaking must ensure that health monitoring is provided to a worker carrying out work for the business or undertaking if— (a) the worker is carrying out ongoing work at a workplace using, handling, generating or storing hazardous chemicals and there is a significant risk to the worker's health because of exposure to a hazardous chemical referred to in Schedule 14, table 14.1, column 2; or (b) the person identifies that because of ongoing work carried out by a worker using, handling, generating or storing hazardous chemicals there is a significant risk that the worker will be exposed to a hazardous chemical (other than a hazardous chemical referred to in Schedule 14, table 14.1) and either— (i) valid techniques are available to detect the effect on the worker's health; or (ii) a valid way of determining biological exposure to the hazardous chemical is available and it is uncertain, on reasonable grounds, whether the exposure to the hazardous chemical has resulted in the biological exposure standard being exceeded.				

Division 7 - Induction, information, training and supervision			Verification / Evidence	Comments	Compliance Score	Recommended Action
379	Duty to provide supervision	1. A person conducting a business or undertaking at a workplace must provide any supervision to a worker that is necessary to protect the worker from risks to the worker's health and safety arising from the work if, at the workplace, the worker— (a) uses, handles, generates or stores a hazardous chemical; or (b) operates, tests, maintains, repairs or decommissions a storage or handling system for a hazardous chemical; or (c) is likely to be exposed to a hazardous chemical.				
		2. The person must ensure that the supervision of the worker is suitable and adequate having regard to— (a) the nature of the risks associated with the hazardous chemical; and (b) the information training and instruction required under regulation 39.				
Chapter 10, Mines						
Part 1, Preliminary			Verification / Evidence	Comments	Compliance Score	Recommended Action
609	Meaning of mine	Information only				
610	Meaning of mining operations	Information only				
611	Meaning of mineral	Information only				
612	Meaning of principal mining hazard	Information only				
613	Meaning of mine operator	Information only				
614	Meaning of mine holder	Information only				
615	Appointment of mine operator	An appointment of a person to be the mine operator of a mine must be in writing, be made in the manner and form required by the regulator, include a signed statement that the person to be appointed as mine operator agrees to the appointment and specify: the name and contact details of the mine operator, including postal and business addresses, date the appointment takes effect and describe the location of the mine, including: the boundaries of all extraction and exploration sites and land title identification.				
616	Notification of mine operator to regulator	The mine holder of a mine must give notice to the regulator the details of the mine operator.				
Part 2 - Managing Risks						
Division 1 General Requirements						
Sub Division 1 Control of Risk			Verification / Evidence	Comments	Compliance Score	Recommended Action
617	Managing risks to health and safety	2. A person conducting a business or undertaking at a mine must ensure that a risk assessment is conducted by a competent person for the purposes of subregulation (1).				
		3. In conducting a risk assessment, the person must have regard to— (a) the nature of the hazard; and (b) the likelihood of the hazard affecting the health or safety of a person; and (c) the severity of the potential health and safety consequences.				
618	Review of control measures	1. A person conducting a business or undertaking at a mine must review and as necessary revise control measures implemented under regulation 617 in the following circumstances: (a) an audit of the effectiveness of the safety management system for the mine indicates a deficiency in a control measure; (b) a worker is moved from a hazard or assigned to different work in response to a recommendation contained in a health monitoring report provided under Part 3; (c) an incident referred to in regulation 675V occurs.				
		2. The mine operator of a mine must ensure that a control measure that is the subject of a request by a health and safety representative under regulation 38(4) is reviewed and as necessary revised, whether the request is made directly to the mine operator or notified to the mine operator under subregulation (3) by another person conducting a business or undertaking at the mine.				
619	Record of certain reviews of control measures—mine operator	1. This regulation applies to a mine operator at a mine who has, under regulation 38, reviewed a control measure in response to— (a) a notifiable incident; or (b) an incident referred to in regulation 675V.				
		2. The mine operator at a mine must keep a record of the following: (a) the work health and safety issues arising from the incident; (b) recommendations arising from consideration of the incident; (c) a summary of any changes to the safety management system for the mine and any affected principal mining hazard management plan for the mine.				

620	Record of certain reviews of control measures - other persons conducting a business or undertaking	1. This regulation applies to a person conducting a business or undertaking at a mine, other than the mine operator, who has, under regulation 38, reviewed a control measure in response to a notifiable incident.				
		2. A person conducting a business or undertaking at a mine must keep a record of the following: (a) the work health and safety issues arising from the incident; (b) recommendations arising from consideration of the incident.				
Sub Division 2, Safety management system			Verification / Evidence	Comments	Compliance Score	Recommended Action
621	Duty to establish and implement safety management system	1.The mine operator of a mine must establish a safety management system for the mine.				
		2. The mine operator must implement the safety management system for the mine, so far as is reasonably practicable.				
		3. The safety management system must form part of any overall management system that is in place at the mine.				
		4. The safety management system must be designed to be used by the mine operator as the primary means of ensuring, so far as is reasonably practicable— (a) the health and safety of workers at the mine; and (b) that the health and safety of other persons is not put at risk from the mine or work carried out as part of mining operations.				
		5. Subject to subregulation (6), the safety management system must provide a comprehensive and integrated system for the management of all aspects of risks to health and safety in relation to the operation of the mine.				
		6. The safety management system must comply with subregulation (5) to the extent appropriate to the mine having regard to— (a) the nature, complexity and location of the mining operations; and (b) the risks associated with those operations.				
		7. The safety management system must be documented.				
		8. The mine operator of a mine that is also a determined major hazard facility is not required to establish a safety management system under regulation 558 for the operation of the major hazard facility if— (a) the mine operator has established a safety management system for the facility for the purposes of this regulation; and (b) the system deals with all matters required to be addressed by a safety management system under regulation 558 and includes all matters specified in Schedule 17; and (c) the system is readily accessible to persons who use it.				
622	Content of safety management system	The safety management system document for a mine must set out the following:				
		(a) the mine operator's health and safety policy, including broad aims in relation to the safe operation of the mine;				
		(b) the arrangements for managing risks in accordance with regulation 617;				
		(c) the systems, procedures, plans and other control measures that will be used to control risks to health and safety associated with mining operations at the mine, including— (i) the principal mining hazard management plans for the mine prepared under Division 2; and (ii) in the case of an underground mine—the ventilation control plan and ventilation plan prepared for the mine under Division 4 Subdivision 2;				
		(d) the management structure for the management of work health and safety at the mine, including— (i) arrangements for filling temporary and permanent vacancies; and (ii) requirements relating to acting positions in the structure; and (iii) the competency requirements for positions in the structure;				
		(e) the arrangements in place, between any persons conducting a business or undertaking at the mine, for consultation, co-operation and the co-ordination of activities in relation to compliance with their duties under the Act;				
		(f) if a contractor is working or likely to work at the mine—the control measures that will be used to control risks to health and safety associated with the contractor's work at the mine, including— (i) how the contractor's work management system will be integrated with the safety management system for the mine; and (ii) the process for assessing health and safety policies and procedures (including competency requirements) of the contractor and integrating them into the safety management system; and (iii) the arrangements for monitoring and evaluating compliance by the contractor with the health and safety requirements of the safety management system;				
		(g) the emergency procedures and all other matters in the emergency plan for the mine prepared under Division 5;				
		(h) the procedures and conditions under which persons at the mine or a part of the mine are to be withdrawn to a place of safety and to remain withdrawn as a precautionary measure where a risk to health and safety warrants that withdrawal;				

		(i) the arrangements for the provision of information, training and instruction required under regulation 39;				
		(j) the induction procedures for workers at the mine;				
		(k) the arrangements in place for the supervision needed to protect workers and other persons at the mine from risks to their health and safety from work carried out at the mine;				
		(l) the arrangements in place for health monitoring under Part 3;				
		(m) the safety role for workers developed under Part 4;				
		(n) the procedures for notifiable incident response and investigation at the mine;				
		(o) the procedures for records management for the mine to ensure compliance with the Act;				
		(p) the arrangements in place for all other monitoring and assessment and regular inspection of the working environment of the mine to be carried out for the purposes of the Act;				
		(q) the performance management system under regulation 623;				
		(r) the resources that will be applied for the effective implementation and use of the safety management system.				
		2. The safety management system document must— (a) contain a level of detail of the matters referred to in subregulation (1) that is appropriate to the mine having regard to— (i) the nature, complexity and location of the mining operations; and (ii) the risks associated with those operations; and (b) so far as is reasonably practicable, be set out and expressed in a way that is readily understandable by persons who use it.				
623	Performance standards and audit	The safety management system for a mine must include the following:				
		(a) performance standards for measuring the effectiveness of all aspects of the safety management system that— (i) are sufficiently detailed to show how the mine operator will ensure the effectiveness of the safety management system; and (ii) include steps to be taken to continually improve the safety management system;				
		(b) the way in which the performance standards are to be met;				
		(c) a system for auditing the effectiveness of the safety management system for the mine against the performance standards, including the methods, frequency and results of the audit process.				
624	Maintenance	The mine operator of a mine must maintain the safety management system for the mine so that the safety management system remains effective.				
625	Review	1. The mine operator of a mine must ensure that the safety management system for the mine is reviewed at least once every 3 years and as necessary revised to ensure it remains effective.				
		2. In addition, if a risk control measure is revised under regulation 38 or 618, the mine operator must ensure that the safety management system for the mine is reviewed and as necessary revised in relation to all aspects of risk control addressed by the revised control measure.				
		3. In addition, if the mine is a determined major hazard facility, the mine operator for the mine must review and as necessary revise the safety management system if a circumstance referred to in regulation 559(2) exists.				
Sub Division 3, Information to adjoining mine operators			Verification / Evidence	Comments	Compliance Score	Recommended Action
626	Duty to provide information to mine operator of adjoining mine	The mine operator of a mine must as soon as practicable, on request, provide to the mine operator of any adjoining mine any information that the mine operator has about conditions at the mine or any activities or proposed activities at the mine that could create a risk to the health and safety of persons at the adjoining mine.				
Division 2 - Principal Mining Hazard Management Plans			Verification / Evidence	Comments	Compliance Score	Recommended Action
627	Identification of principal mining hazards and conduct of risk assessments	1. The mine operator of a mine must identify all principal mining hazards at the mine.				
		2. The mine operator must conduct, in relation to each principal mining hazard identified, a risk assessment that involves a comprehensive and systematic investigation and analysis of all aspects of risk to health and safety associated with the principal mining hazard.				
		3. The mine operator, in conducting a risk assessment under subregulation (2), must— (a) use investigation and analysis methods that are appropriate to the principal mining hazard being considered; and (b) consider the principal mining hazard individually and also cumulatively with other hazards at the mine.				

628	Preparation of principal mining hazard management plan	1. The mine operator of a mine must prepare a principal mining hazard management plan for each principal mining hazard at the mine, having regard to the matters set out in Schedule 19.				
		2. A principal mining hazard management plan must— (a) provide for the management of all aspects of risk control in relation to the principal mining hazard; and (b) so far as is reasonably practicable, be set out and expressed in a way that is readily understandable by persons who use it.				
		3. A principal mining hazard management plan must— (a) describe the nature of the principal mining hazard to which the plan relates; and (b) describe how the principal mining hazard relates to other hazards at the mine; and (c) describe the analysis methods used in identifying the principal mining hazard to which the plan relates; and (d) include a record of the risk assessment conducted in relation to the principal mining hazard; and (e) describe the investigation and analysis methods used in determining the control measures to be implemented; and (f) describe all control measures to be implemented to manage risks to health and safety associated with the principal mining hazard; and (g) describe the arrangements in place for providing the information, training and instruction required by regulation 39 in relation to the principal mining hazard; and (h) refer to any design principles, engineering standards and technical standards relied on for control measures for the principal mining hazard; and (i) set out the reasons for adopting or rejecting all control measures considered.				
629	Review	1. The mine operator of a mine must ensure that a principal mining hazard management plan is reviewed and as necessary revised if a risk control measure specified in the plan is revised under regulation 38 or 618.				
		2. If a principal mining hazard management plan is revised, the mine operator must record the revisions, including any revision of a risk assessment, in writing in the plan.				

Division 3, Specific control measures—all mines

Sub Division 1 - Operational controls			Verification / Evidence	Comments	Compliance Score	Recommended Action
630	Communication between outgoing and incoming shifts	The mine operator of a mine at which more than 1 shift is worked each day must implement a system that ensures that, as soon as practicable at the commencement of each shift— (a) the supervisor of each outgoing shift provides a written report to the supervisor of the incoming shift, in relation to the state of the mine workings and plant and any other matters that relate to work health or safety; and (b) the supervisor of the incoming shift communicates the content of the report to the workers on the incoming shift.				
631	Movement of mobile plant	2. In managing risks to health and safety associated with the movement of mobile plant at the mine, the mine operator must have regard to all relevant matters including the following: (a) the design, layout, construction and maintenance of all roads and other areas at the mine used by mobile plant; (b) interactions between mobile plant, especially between large and small mobile plant; (c) interactions between mobile plant and fixed plant or structures; (d) interactions between mobile plant and pedestrians (including the use of pre-movement warnings for mobile plant in mine workings); (e) the operation of remotely controlled mobile plant; (f) the maintenance, testing and inspection of brakes, steering, lights and other safety features of the mobile plant.				
632	Prohibited uses	The mine operator of a mine must take all reasonable steps to ensure an item or substance specified in Schedule 20, column 1 is not used in a place or for a purpose that is prohibited or restricted as set out in Schedule 20, column 2 opposite that item or substance.				
633	Closure, suspension or abandonment of mine	1. If the mine operator of a mine closes the mine, the mine operator must, at the time of the closure, ensure, so far as is reasonably practicable, that the mine is safe, including by being secure against unauthorised entry by any person.				
		2. If mining operations at a mine are suspended, the mine operator must ensure, so far as is reasonably practicable, that the mine is safe, including by being secure against unauthorised entry by any person, during the period of suspension.				
		3. The mine operator of a mine must not abandon the mine.				
634	Minimum age to work in mine	The mine operator of a mine must take all reasonable steps to ensure that— (a) a person under the age of 16 years is not engaged to carry out work in any open cut workings or in an underground mine; and (b) a person under the age of 18 years is not engaged to carry out work in an underground mine, unless the person is over the age of 16 years and is an apprentice or trainee under direct supervision in relation to the work.				

Sub Division 2 - Air quality and monitoring			Verification / Evidence	Comments	Compliance Score	Recommended Action
635	Temperature and moisture content of air	In complying with regulation 617, the mine operator of a mine must— (a) manage risks to health and safety associated with extremes of either or both the temperature and moisture content of air; and (b) if risks associated with extreme heat exist in an underground mine—implement control measures (including monitoring) to manage heat stress in places in the mine where— (i) persons work or travel; and (ii) the wet bulb temperature exceeds 27°C.				
636	Ensuring exposure standards for dust not exceeded	The mine operator of a mine must ensure that no person at the mine is exposed to 8-hour time-weighted average atmospheric concentrations of airborne dust that exceed— (a) for respirable dust—3.0 mg per cubic metre of air; (b) for inhalable dust—10.0 mg per cubic metre of air.				
637	Monitoring exposure to airborne dust	Regulation 50 applies to the mine operator of a mine in relation to airborne dust as if the concentration of airborne dust referred to in regulation 636(1)(a) or (b) were an exposure standard to which regulation 50 applies.				
638	Air monitoring—use of devices	The mine operator of a mine who uses air monitoring devices to comply with air monitoring requirements under regulation 50 and this Chapter must ensure that— (a) the devices used are suitable and effective having regard to— (i) the nature of the monitoring being carried out; and (ii) the substance being monitored; and (b) the devices are positioned to ensure that they work to best effect.				
639	Air monitoring—signage	The mine operator of a mine, in complying with air monitoring requirements under regulation 50 and this Chapter, must ensure that signs are erected at the mine that explain— (a) the meaning of any warning produced by an air monitoring device; and (b) what persons must do in response to the warning.				
Sub Division 3 - Fitness for work			Verification / Evidence	Comments	Compliance Score	Recommended Action
640	Fatigue	In complying with regulation 617, the mine operator of a mine must manage risks to health and safety associated with worker fatigue.				
641	Alcohol and drugs	1. In complying with regulation 617, the mine operator of a mine must manage risks to health and safety associated with the consumption of alcohol by workers.				
		2. In complying with regulation 617, the mine operator of a mine must manage risks to health and safety associated with the use of drugs by workers.				
Division 4, Specific control measures—underground mines						
Sub Division 1 - All underground mines—operational controls			Verification / Evidence	Comments	Compliance Score	Recommended Action
642	Inrush hazards	1. The mine operator of an underground mine must implement a system for the mine that ensures— (a) the identification of all reasonably foreseeable inrush hazards at the mine; and (b) the determination of the presence and location of an inrush hazard by exploratory bore-holes (including a way of sealing or otherwise controlling a bore-hole to prevent inrush) or other exploratory methods; and (c) communication of the location of identified inrush hazards, including inrush hazards being approached, to all affected persons; and (d) the determination of whether or not an identified inrush hazard is a principal mining hazard; and (e) if an identified inrush hazard is a principal mining hazard—the identification, establishment and maintenance of an inrush control zone for the inrush hazard in accordance with this regulation.				
		2. An inrush control zone must be located in the vicinity of the inrush hazard and— (a) if the exact location of the inrush hazard is known—extend at least 50 metres from the location of the inrush hazard; or (b) if the exact location of the inrush hazard is not known—extend any greater distance from the suspected location of the inrush hazard determined by a risk assessment conducted under regulation 627.				
		3. The mine operator must ensure, in relation to each inrush control zone, that control measures and procedures are implemented to control the risk of inrush.				
		4. The mine operator must ensure that an inrush control zone is not mined before— (a) control measures and procedures have been implemented under subregulation (3); and (b) the persons who are to work in the zone have been trained in relation to the implementation of those controls and procedures.				

		5. If an identified inrush hazard is not at an accessible place at the mine, it is sufficient to control the risk from inrush by— (a) providing adequate separation of solid rock between the mine workings and the assessed worst case position of the potential source of inrush; and (b) complying with the requirements of any applicable principal mining hazard management plan prepared for inrush hazards.				
		6. The mine operator of an underground mine, before connecting any underground mine workings at the mine to any other workings (including disused workings), must— (a) ensure that the other workings are inspected for water, gas and any other circumstance that may be an inrush hazard; and (b) if it is not possible to safely gain access to the workings to be connected— ensure that exploratory bore-holes or other exploratory methods are used to determine the location of the other workings.				
643	Connecting workings	1. The mine operator of an underground mine must ensure that, if 2 working faces are approaching each other at an underground mine, 1 of the workings is stopped, made safe and barricaded as soon as practicable before the distance separating the faces creates a risk to health or safety.				
		2. The mine operator of an underground mine, before connecting any underground mine workings to any other workings (including disused workings) must ensure that the other workings are inspected for water, gas, misfires, butts and any other circumstance that may be a risk to the health or safety of any person at the mine, other than a risk associated with an inrush hazard.				
644	Winding systems	1. The mine operator of an underground mine must ensure that every winding system used or that may be put into use at the mine includes the following: (a) ropes that will enable the shaft conveyance to bear the weight that can reasonably be expected to be borne by the shaft conveyance; (b) controls and limiting devices to prevent any shaft conveyance from being overwound or overrun or from travelling at an unsafe speed; (c) brakes that can bring the system to rest; (d) devices that detect slack rope or drum slip conditions, or tail rope malfunctions; (e) devices that cause the winder to stop when a condition or malfunction referred to in paragraph (d) is detected; (f) warning systems to alert persons at the mine to any emergency in a shaft; (g) remote monitoring of the functions of the system; (h) an effective means of communication— (i) between the surface and any shaft conveyance used for carrying persons; and (ii) between the point of control of the winder and the entry to every shaft that is in use.				
		2. The mine operator must ensure that the winding system for each shaft that is in use or that may be put into use at the mine, and all components of the winding system, are tested at intervals that ensure the safe performance of the system.				
		3. The mine operator must ensure that energy lockout devices are fitted to all mechanical and electrical plant associated with any shaft at the mine, including any mechanical and electrical plant associated with the operation, maintenance or use of the shaft.				
645	Operation of shaft conveyances	1. The mine operator of an underground mine must ensure that material or plant being carried in a shaft conveyance— (a) does not protrude from the shaft conveyance, while it is moving, so as to contact a wall of the shaft or any thing in the shaft; and (b) is so secured to the shaft conveyance that it cannot leave the shaft conveyance except by being deliberately removed.				
		2. The mine operator of an underground mine must ensure that persons being carried in a shaft conveyance are adequately protected from another shaft conveyance in the same shaft and from any material or plant being carried by the other shaft conveyance.				
		3. The mine operator of an underground mine must ensure that, if a shaft conveyance that combines a cage and skip is used, material is not carried in the skip while persons are being carried in the cage.				
		4. The mine operator of an underground mine must ensure that control measures are implemented to prevent a shaft conveyance from becoming detached or falling down the shaft.				
		5. The mine operator of an underground mine must ensure, so far as is reasonably practicable, that facilities for loading material or plant onto or into a shaft conveyance are designed and operated so as to prevent spillage into the shaft.				
646	Dust explosion	2. In managing risks to health and safety associated with dust at the mine, the mine operator must implement control measures that, so far as is reasonably practicable— (a) minimise the generation of potentially explosive dusts; and (b) suppress, collect and remove potentially explosive airborne dusts; and (c) suppress any dust explosion; and (d) restrict the propagation of any dust explosion so that other areas are not affected.				

Sub Division 2 - All underground mines—air quality and ventilation			Verification / Evidence	Comments	Compliance Score	Recommended Action
647	Air quality—airborne contaminants	1. The mine operator of an underground mine must ensure that the concentration of any airborne contaminant (including any asphyxiant or explosive gas) is as low as is reasonably practicable.				
		2. The mine operator must comply with subregulation (1)— (a) so far as is reasonably practicable, by suppression or the installation of a ventilation or exhaust extraction system; or (b) if this is not reasonably practicable, by some other suitable means.				
648	Air quality—minimum standards for ventilated air	1. The mine operator of an underground mine must ensure that the ventilation system for the mine provides air that is of sufficient volume, velocity and quality to ensure that the general body of air in the areas in which persons work or travel— (a) has a concentration of oxygen that is at least 19.5% under normal atmospheric pressure; and (b) has dust levels that— (i) are as low as is reasonably practicable; and (ii) do not exceed the relevant levels specified in regulation 636; and (c) if diesel engines are used underground—has a concentration of diesel particulates that is as low as is reasonably practicable.				
		2. In addition to subregulation (1), the mine operator of an underground mine must ensure that the ventilation system for the mine provides air that is of sufficient quality to ensure that the general body of air in the areas in which persons work or travel has a level of contaminants that— (a) is as low as is reasonably practicable; and (b) does not exceed the exposure level for that contaminant specified in the relevant exposure standard referred to in regulation 49.				
649	Air monitoring—air quality	The mine operator of an underground mine must ensure that air monitoring is carried out at the mine if the mine operator is not certain on reasonable grounds whether or not regulation 648 is being complied with.				
650	Requirements if air quality requirements and exposure standards not complied with	1. This regulation applies if monitoring reveals that in an underground mine— (a) the oxygen level specified in regulation 648(1)(a) is not met; or (b) a dust level referred to in regulation 648(1)(b)(ii) is exceeded; or (c) an exposure level referred to in regulation 648(2)(b) is exceeded.				
		2. The mine operator of an underground mine must immediately notify any affected workers or other persons at the mine of the relevant circumstance referred to in subregulation (1).				
		3. The mine operator of an underground mine must ensure that the air quality at the mine is retested by a competent person as soon as practicable.				
651	Records of air monitoring	1. The mine operator of a mine must keep a record of air monitoring carried out at the mine under regulation 649.				
		2. A record of air monitoring must include— (a) the results of the monitoring; and (b) details of the dates, location and frequency of the monitoring; and (c) the sampling method and equipment used.				
		3. A record of air monitoring carried out under regulation 649 must be kept for 7 years after the record is made.				
		4. The mine operator must keep a record of air monitoring available for inspection under the Act.				
		5. The mine operator must keep a record of air monitoring readily accessible to workers and other persons at the mine.				
652	Ventilation system—further requirements	1. The mine operator of an underground mine must ensure that the air supplied to the ventilation system at the mine is obtained from the purest source available.				
		2. The mine operator must ensure the following: (a) ventilation circuits at the mine do not allow uncontrolled recirculation of air; (b) plant and structures that regulate airflow are maintained in good working order; (c) unventilated headings are not entered unless— (i) the purpose of entry is to establish ventilation; and (ii) adequate auxiliary ventilation is provided to the person entering the heading.				
		3. The mine operator must ensure that, in areas of the mine where persons work or travel, the ventilation system for the mine provides an average air velocity of at least 0.3 metres per second measured across the work or travel area.				
653	Monitoring and testing of ventilation system	1. The mine operator of an underground mine must monitor and test all aspects of the operation of the ventilation system at intervals that ensure that the system complies with regulations 648 and 652.				
		2. The mine operator of a mine must keep a record of all monitoring and testing of the ventilation system at the mine for at least 7 years.				
		3. The mine operator must keep the record available for inspection under the Act.				
		4. The mine operator must keep the record readily accessible to workers and other persons at the mine.				

654	Duty to prepare ventilation control plan	1. The mine operator of an underground mine must ensure that a ventilation control plan is prepared to provide for the management of all aspects of ventilation at the mine.				
		2. The ventilation control plan must describe all control measures implemented in relation to ventilation at the mine.				
		3. Without limiting subregulation (2), the ventilation control plan must include a description of the following, if applicable to the mine: (a) the design and operation of the ventilation system, including the standards applying to the placement, operation, maintenance and monitoring of ventilation plant; (b) arrangements for inspecting, monitoring, maintaining and testing the ventilation system; (c) arrangements for managing risks to health and safety associated with potential inrush hazards and leakage into intake airways of atmospheric contaminants from goaf areas and abandoned sealed workings; (d) arrangements for managing risks to health and safety associated with intake air travelling across the face of a permanent seal at the mine; (e) arrangements for an alternate and independent way of operating the main ventilation fan system in the event of a loss of power supply to the main ventilation system; (f) arrangements for managing risks to health and safety associated with ignition sources, in the event that the ventilation system fails to adequately ventilate the mine; (g) procedures to ensure the health and safety of persons at the mine in the event of a total or partial ventilation failure for more than 30 consecutive minutes.				
655	Review of ventilation control plan	The mine operator of an underground mine must ensure that a ventilation control plan is reviewed and as necessary revised if a risk control measure specified in the plan is revised under regulation 38 or 618.				
656	Ventilation plan	1. The mine operator of an underground mine must ensure that a plan of the ventilation system for the mine is prepared.				
		2. The ventilation plan must show— (a) the direction, course and volume of air currents; and (b) the position of all air doors, stoppings, fans, regulators and other ventilation plant and structures and ventilation monitoring devices at the mine.				

Division 5, Emergency management

Sub Division 1 - Emergency plans for all mines

			Verification / Evidence	Comments	Compliance Score	Recommended Action
664	Duty to prepare emergency plan	1. The mine operator of a mine must prepare an emergency plan for the mine in accordance with this Subdivision.				
		2. In addition to the matters required by regulation 43(1), the emergency plan must— (a) address all aspects of emergency response, including by ensuring— (i) the establishment of a system that enables all persons at the mine to be promptly located; and (ii) the provision of adequate rescue equipment; and (iii) that an adequate number of persons trained in the use of rescue equipment are available to respond effectively to the emergency if a person is working at the mine; and (iv) the provision of adequate patient transport if a person is working at a mine; and				
		(b) include all matters specified in Schedule 22; and				
		(c) so far as is reasonably practicable, be set out and expressed in a way that is readily understandable by persons who use it.				
		3. The emergency plan for a mine must comply with the matters in subregulation (2)(a) and (b) to the extent that the matters are applicable to the mine having regard to— (a) the nature, complexity and location of the mining operations; and (b) the risks associated with those operations.				
		4. The emergency plan for a mine must contain an appropriate level of detail about the matters set out in subregulation (2)(a) and (b) having regard to all relevant matters including— (a) the nature, complexity and location of the mining operations; and (b) the risks associated with those operations.				
		5. The mine operator of a mine that is also a determined major hazard facility is not required to prepare an emergency plan under regulation 557 for the major hazard facility if— (a) the mine operator has prepared an emergency plan for the facility for the purposes of this regulation; and (b) the plan addresses all matters required to be addressed in an emergency plan under regulation 557 and includes all matters specified in Schedule 16.				

665	Consultation in preparation of emergency plan	1. In preparing an emergency plan, the mine operator must consult with— (a) the primary emergency services with responsibility for the area in which the mine is located; and (b) any other emergency service organisation, including any mines rescue organisation, that may be required to participate in implementing the emergency plan; and (c) in relation to the principal mining hazards that may cause or contribute to an incident that may adversely affect the health and safety of persons in the area surrounding the mine—the local authority for the local authority area in which the mine is located; and (d) if the mine is a major hazard facility—the local authority in relation to the off-site health and safety consequences of a major incident occurring.				
		2. Subregulation (1)(a) does not apply to a mine operator who has on-site emergency resources and capability or access to off-site emergency resources and capability that are sufficient to address all aspects of emergency response at the mine.				
		3. The mine operator must ensure that the emergency plan addresses any recommendation made by the emergency service organisations consulted under subregulation (1) in relation to— (a) the testing of the emergency plan, including the way in which it will be tested, the frequency of testing and whether or not the emergency service organisations will participate in the testing; and (b) what incidents or events at the mine should be notified to the emergency service organisations.				
		4. The mine operator must have regard to any other recommendation or advice given by a person consulted under subregulation (1).				
666	Implementation of emergency plan	1. The mine operator of a mine must immediately implement the emergency plan for the mine in the event of an emergency.				
		2. If the mine is a determined major hazard facility, the mine operator must— (a) immediately implement the emergency plan if— (i) a major incident occurs in the course of the operation of the major hazard facility; or (ii) an event occurs that could reasonably be expected to lead to a major incident; and (b) notify the emergency service organisations consulted under regulation 665(1) of the occurrence of an incident or event referred to in regulation 665(3)(b).				
667	Copies to be kept and provided	1. The mine operator of a mine must keep a copy of the emergency plan at the mine.				
		2. The mine operator must ensure that a copy of the emergency plan is available on request to any emergency service organisation consulted under regulation 665(1)(a).				
668	Resources for emergency plan	The mine operator of a mine must ensure that— (a) all resources, including rescue equipment, specified in the emergency plan for the mine are provided in accordance with the plan; and (b) all equipment, including rescue equipment, specified in the emergency plan is maintained in good working order.				
669	Testing of emergency plan	1. The mine operator must test the emergency plan at least once a year having regard to the recommendations made by the emergency service organisations consulted under regulation 665 in preparing the plan.				
		2. In addition, if the mine is a determined major hazard facility, the mine operator must test the emergency plan in accordance with the recommendations made by the emergency service organisations referred to in regulation 665(1) before applying for a licence for the major hazard facility.				
670	Review	1. If a risk control measure is revised under regulation 38 or 618, the mine operator of the mine must ensure that the emergency plan is reviewed and as necessary revised in relation to all aspects of risk control addressed by the revised control measure.				
		2. In addition, if the mine is a determined major hazard facility, the mine operator for the mine must review and as necessary revise the emergency plan if a circumstance referred to in regulation 559(2) exists.				
		3. In reviewing and revising the emergency plan for the purposes of subregulation (2), the operator must consult with the emergency service organisations referred to in regulation 665.				

Sub Division 2 - Underground mines			Verification / Evidence	Comments	Compliance Score	Recommended Action
671	Emergency exits	1. The mine operator of an underground mine must ensure that the mine has at least 2 trafficable exits to the surface that comply with subregulations (2) and (3).				
		2. Each exit must— (a) be accessible from each level in the mine in which stoping operations are being carried out; and (b) allow for the passage of rescue persons and rescue equipment; and (c) be marked or signposted so that it can be readily located in an emergency; and (d) be maintained so that it remains effective.				
		3. The exits must be located so as to ensure, so far as is reasonably practicable, that an incident or event that occurs in relation to 1 exit, that prevents the exit from being used for the purpose of escape from the mine, does not prevent persons from using the other exit to escape.				
		4. The mine operator of a mine is not required to comply with subregulation (1) in either of the following circumstances if the mine operator ensures that the mine has at least 1 trafficable exit to the surface that complies with subregulation (2): (a) a single entry drive or shaft is being developed; (b) the most distant area of the mine is no more than 250 metres from the mine entrance.				
672	Safe escape and refuge	1. The mine operator of an underground mine must provide adequate means of communicating with all affected persons when the emergency plan for the mine is implemented.				
		2. The mine operator of an underground mine must provide adequate means of escape that enable persons to safely reach an exit or refuge, including through conditions of reduced visibility or irrespirable or unsafe atmospheres.				
673	Signage for refuges	The mine operator of an underground mine that includes a refuge must ensure that signs are prominently displayed at the mine showing the location of each refuge.				
674	Self-rescuers	1. The mine operator of an underground mine must ensure that a person who is to go underground is provided with an appropriate self-contained self-rescuer if there is a risk of an irrespirable atmosphere in the underground mine (including during an emergency).				
		2. The mine operator must ensure that the person is trained in the use of, and is able to use, the self-rescuer provided.				
675	Personal protective equipment in emergencies	2. The mine operator of the underground mine must ensure that oxygen or air supplied respiratory equipment is available for use by, and is provided to, the worker in an emergency in which— (a) the concentration of oxygen falls below a safe oxygen level; or (b) the atmosphere in the underground mine has a harmful concentration of an airborne contaminant; or (c) there is a serious risk of the atmosphere in the underground mine becoming affected in the way referred to in paragraph (a) or (b) while the worker is in the underground mine.				
		3. The mine operator must ensure that suitable personal protective equipment is available for use by, and is provided to, the worker in an emergency in which— (a) there has been an inundation or inrush of any substance in the underground mine; or (b) there is a serious risk of an inundation or inrush of any substance occurring while the worker is in the underground mine.				
		4. The mine operator must ensure, so far as is reasonably practicable, that a worker uses the personal protective equipment provided under subregulation (2) or (3).				
Division 6 - Information, training and instruction			Verification / Evidence	Comments	Compliance Score	Recommended Action
675A	Duty to inform workers about safety management system	1. The mine operator of a mine must ensure that, before a worker commences work at the mine— (a) the worker is given a summary of the safety management system for the mine that is relevant to the worker's work at the mine; and (b) the worker is informed of the right to see the documented safety management system for the mine prepared under regulation 621.				
		2. The mine operator must ensure that the documented safety management system is available on request to a worker at the mine.				
		3. The mine operator must ensure that— (a) a principal mining hazard management plan prepared under regulation 628 is readily accessible to a worker who is or may be exposed to the risks to which the plan relates; and (b) a ventilation control plan, prepared under regulation 654, is readily accessible to all workers at the mine; and (c) the emergency plan for the mine, prepared under regulation 664, is readily accessible to all workers at the mine.				
		4. If the safety management system is revised under regulation 625, the mine operator must ensure, so far as is reasonably practicable, that each worker at the mine is made aware of any revision that is relevant to work being carried out by the worker.				

675B	Duty to provide information, training and instruction	2. The mine operator of a mine must ensure that each worker at the mine is provided with suitable and adequate information, training and instruction in relation to the following: (a) all hazards associated with the work being carried out by the worker; (b) the implementation of risk control measures relating to the work being carried out by the worker, including controls in relation to fatigue, the consumption of alcohol and the use of drugs; (c) the content and implementation of the safety management system for the mine; (d) the emergency plan for the mine; (e) the safety role for workers implemented under regulation 675Q.				
675C	Information for visitors	The mine operator of a mine must ensure that a visitor who enters the mine with the authority of the mining operator is, as soon as practicable— (a) informed about risks associated with mining operations to which the visitor may be exposed at the mine; and (b) instructed in health and safety precautions the visitor should take at the mine; and (c) instructed in the actions the visitor should take if the emergency plan for the mine is implemented while the visitor is at the mine.				
675D	Review of information, training and instruction	The mine operator of a mine must ensure that information, training and instruction provided to workers under regulations 675A and 675B or to visitors under regulation 675C are reviewed and as necessary revised to ensure that they remain relevant and effective.				
675E	Record of training	The mine operator of a mine must— (a) make a record of any training provided to a worker under regulation 675B; and (b) keep the record while the worker remains engaged at the mine.				
Part 3, Health Monitoring			Verification / Evidence	Comments	Compliance Score	Recommended Action
675F	Health monitoring of worker	1. The mine operator of a mine must ensure that health monitoring is provided in accordance with subregulation (2) to a worker at a mine engaged to carry out work at a mine if— (a) there is a significant risk of an adverse effect on the worker's health because of the worker's exposure to a hazard associated with mining; and (b) valid techniques are available to detect that effect on the worker's health.				
		2. The health monitoring must be carried out— (a) in accordance with this Part; and (b) at intervals determined by a registered medical practitioner with experience in health monitoring.				
675G	Duty to inform of health monitoring	The mine operator of a mine, who is required to ensure that health monitoring is provided to a worker, must give information about the health monitoring requirements to— (a) a person who is likely to be engaged to carry out work that triggers the requirement for health monitoring; and (b) a worker at the mine, before the worker commences work that triggers the requirement for health monitoring.				
675H	Duty to ensure health monitoring is carried out or supervised by registered medical practitioner with experience	1. The mine operator of a mine must ensure, so far as is reasonably practicable, that the health monitoring of a worker under this Part is carried out by or under the supervision of a registered medical practitioner with experience in health monitoring.				
		2. The mine operator must ensure that the worker is consulted in relation to the selection of the registered medical practitioner.				
675I	Duty to pay costs of health monitoring	1. The mine operator of a mine who engages a worker at the mine must pay all expenses relating to health monitoring referred to in this Part.				
		2. If the mine operator of a mine has not engaged a worker at the mine, the mine operator must ensure that the person conducting the business or undertaking that engaged the worker pays all expenses relating to health monitoring.				
675J	Duty to provide registered medical practitioner with information	The person conducting a business or undertaking who commissions health monitoring for a worker must provide the following information to the registered medical practitioner carrying out or supervising the health monitoring: (a) the name and address of the mine operator; (b) the name and date of birth of the worker; (c) the work that the worker is, or will be, carrying out that has triggered the requirement for health monitoring; (d) if the worker has started the work—how long the worker has been carrying out the work.				

675K	Health monitoring report	1. Health monitoring must be documented in a health monitoring report in the form approved by the regulator. 2. The health monitoring report must include the following: (a) the name and date of birth of the worker; (b) the name and registration number of the registered medical practitioner; (c) the name and address of— (i) the mine operator; and (ii) the person conducting a business or undertaking who commissioned the health monitoring; (d) the date of the health monitoring; (e) an explanation of the results; (f) any advice indicating any adverse health effect resulting from exposure to a risk associated with mining operations; (g) any recommendation that the mine operator take remedial measures, including whether the worker can continue to carry out the type of work that triggered the requirement for health monitoring; (h) whether medical counselling is required for the worker in relation to the work that triggered the requirement for health monitoring.				
675L	Person conducting business or undertaking to obtain health monitoring report	The person conducting a business or undertaking who has commissioned health monitoring must take all reasonable steps to obtain a health monitoring report from the registered medical practitioner who carried out or supervised the monitoring as soon as practicable after the monitoring is carried out in relation to a worker.				
675M	Person conducting business or undertaking to give health monitoring report to mine operator of mine	A person conducting a business or undertaking must, on request, give a copy of the health monitoring report required to be kept under regulation 675P(1) to the mine operator of any mine at which the worker carries out work.				
675N	Duty to give health monitoring report to worker	The mine operator of a mine must take all reasonable steps to ensure that a worker at the mine who is provided with health monitoring is given a copy of the health monitoring report as soon as practicable after the monitoring is carried out.				
675O	Duty to give health monitoring report to regulator	The mine operator of a mine must take all reasonable steps to ensure that a copy of a health monitoring report relating to a worker at the mine is given to the regulator as soon as practicable if the report contains— (a) any advice indicating any adverse health effect resulting from exposure to a risk associated with mining operations; or (b) a recommendation that the mine operator should move the worker from a hazard or assign the worker to different work.				
675P	Health monitoring reports kept as records	1. The person conducting a business or undertaking that engaged a worker at the mine must ensure that a health monitoring report in relation to the worker is kept as a confidential record.				
		1a. The person must ensure that a health monitoring report in relation to a worker is kept for at least— (a) for hazards known to have a cumulative or delayed health effect—30 years after the record is made; or (b) for other hazards—7 years after the record is made.				
		2. A person conducting a business or undertaking who obtains a health monitoring report in relation to a worker under this Part must not disclose the report to another person without the worker's written consent.				
		3. Subregulation (2) does not apply if the report is disclosed to— (a) a mine operator to whom a copy report is given under regulation 675M; or (b) the regulator under regulation 675O; or (c) a new mine operator to whom all records are given under regulation 615(3); or (d) a person who must keep the report confidential under a duty of professional confidentiality; or (e) a health and safety representative in accordance with section 71(2) of the Act.				
		4. The person conducting a business or undertaking that engaged a worker at the mine must ensure, so far as is reasonably practicable, that any health monitoring report kept in relation to a worker under subregulation (1) is given to the worker if the business or undertaking at the mine is to be wound up or otherwise cease to exist.				
Part 4, Consultation and Workers' Safety Role			Verification / Evidence	Comments	Compliance Score	Recommended Action
675Q	Safety role for workers in relation to principal mining hazards	The mine operator of a mine must implement a safety role for the workers at the mine that enables them to contribute to— (a) the identification under regulation 627 of principal mining hazards that are relevant to the work that the workers are or will be carrying out; and (b) the consideration of control measures for risks associated with principal mining hazards at the mine; and (c) the conduct of a review under regulation 629.				

675R	Mine operator must consult with workers	For the purposes of section 49(f) of the Act, the mine operator of a mine must consult with workers at the mine in relation to the following:				
		(a) the development, implementation and review of the safety management system for the mine;				
		(b) conducting risk assessments for principal mining hazard management plans;				
		(c) preparing, testing and reviewing the emergency plan for the mine;				
		(d) the implementation of the workers' safety role under regulation 675Q;				
		(e) developing and implementing strategies to protect persons at the mine from any risk to health and safety arising from the following:				
		(i) the consumption of alcohol or use of drugs by any person;				
		(ii) worker fatigue.				
Part 5, Mine Survey Plans			Verification / Evidence	Comments	Compliance Score	Recommended Action
675S	Survey plan of mine must be prepared	1. The mine operator of a mine must ensure that a detailed survey plan of the mine is prepared by a competent person.				
		2. The plan must (unless it relates to a precious stones field under the Opal Mining Act 1995) reference the mine to the Geocentric Datum of Australia and the Australian Height Datum.				
		3. The plan must show the following (if present at the mine): (a) the workings of the mine, including disused workings and bore holes; (b) the location of electrical installations; (c) the location of telephones and other fixed plant associated with the radio and telecommunications systems; (d) water dams and tailings dams; (e) natural features surrounding the mine; (f) places for the storage of hydrocarbons or explosives; (g) points of entry and exit, including emergency exits; (h) refuges (in an underground mine).				
		4. In complying with subregulation (1), the mine operator of a mine must take all reasonable steps to obtain historical mine surveys of the mine to ensure the accuracy of the mine survey plan.				
675T	Review of survey plan	1. The mine operator of a mine must review and as necessary revise the mine survey plan— (a) if it no longer accurately reflects the workings that have been carried out at the mine or the workings that are proposed to be carried out at the mine; or (b) if there are reasonable grounds to believe that the mine survey plan is not accurate; or (c) at least once every 12 months.				
675U	Survey plan to be available	1. The mine operator of a mine must keep the current mine survey plan and all previous versions of the plan available for inspection under the Act.				
		2. The mine operator of a mine must make the current mine survey plan available on request to workers at the mine.				
Part 6, Provision of information to regulator			Verification / Evidence	Comments	Compliance Score	Recommended Action
675V	Duty to notify regulator of certain incidents	1. The mine operator of a mine must take all reasonable steps to ensure that the regulator is notified as soon as possible after becoming aware of an incident arising out of the carrying out of mining operations at the mine.				
		2. The notification must— (a) be in writing; and (b) be in a form required by the regulator; and (c) in the case of an incident that results in an illness or injury, contain the details specified in Schedule 23.				
675W	Quarterly reports	1. The mine operator of a mine must give the regulator a quarterly work health and safety report in accordance with this regulation.				
		2. The report must— (a) be given at the times or intervals (including annually) and in the manner and form required by the regulator; and (b) contain the information specified in Schedule 24.				
675X	Duty to notify mine operator of notifiable incidents	A person who conducts a business or undertaking at a mine must ensure that the mine operator is notified as soon as practicable of any incident that has been notified to the regulator under section 38 of the Act.				

Part 7, Mine Record			Verification / Evidence	Comments	Compliance Score	Recommended Action
675Y	Mine record	1. The mine operator of a mine must keep a mine record for the mine.				
		2. The mine record must contain— (a) a record of any notice issued in relation to the mine under Part 10 of the Act; and (b) a copy of any provisional improvement notice issued in relation to the mine under Part 5 Division 7 of the Act; and (c) a record of every incident notified to the regulator under Part 3 of the Act or under regulation 675V; and (d) a summary of all records kept under regulations 619 and 620; and (e) each report under regulation 630 by a shift supervisor at the mine.				
675Z	Mine record must be kept and available	1. The mine operator of a mine must keep a record that forms part of the mine record for 7 years from the date the record was made.				
		2. The mine operator must keep the mine record for the mine available for inspection under the Act.				
		3. The mine operator must ensure that the mine record for the mine is available to workers at the mine on request.				
		4. For the purposes of subregulation (3), the mine operator is only required to make available a summary of a record referred to in regulation 675Y(2)(c).				
		5. Subregulation (3) does not require or permit the mine operator to provide personal or medical information in relation to a worker without the worker's written consent unless the information is in a form that— (a) does not identify the worker; and (b) could not reasonably be expected to lead to the identification of the worker.				

Organisation/Location: GEM Group

Last Updated:

ACTION PLAN							
Regulation	Action Recommended (WHAT)	Planned Action (HOW)	Risk Priority	Person Responsible	Date action to be completed	Monitoring	
						Status of Action	
Chapter 2, Representation and participation						Select	% Completed
16							
18							
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Chapter 3, General risk and workplace management						Select	% Completed
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Chapter 4, Hazardous work						Select	% Completed
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Chapter 5, Plant and structures						Select	% Completed
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Chapter 7, Hazardous chemicals						Select	% Completed
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Disclaimer

This assessment tool addresses the key elements of the South Australian WHS Regulations 2012 that are relevant to mining and quarrying operations, but not all. Compliance with this tool does not guarantee full compliance with all WHS legal requirements, nor that the PCBU is immune from enforcement action by SafeWork SA.

The legislation mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

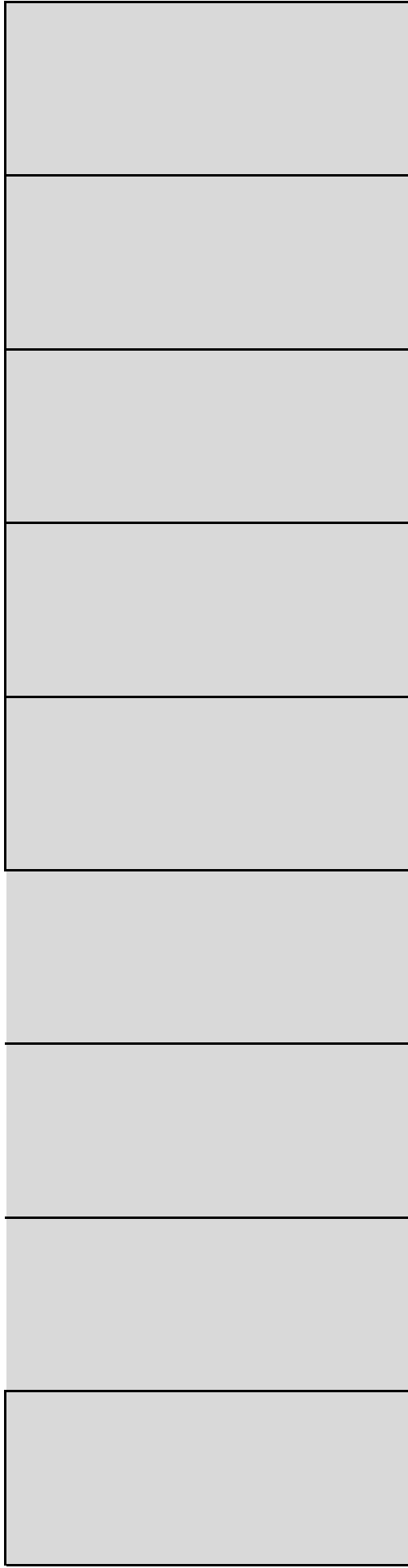
Any assessment report produced is intended for internal use only by the recipient, for the improvement of WHS, and should not be used for any other purpose whatsoever or disseminated to any third party.

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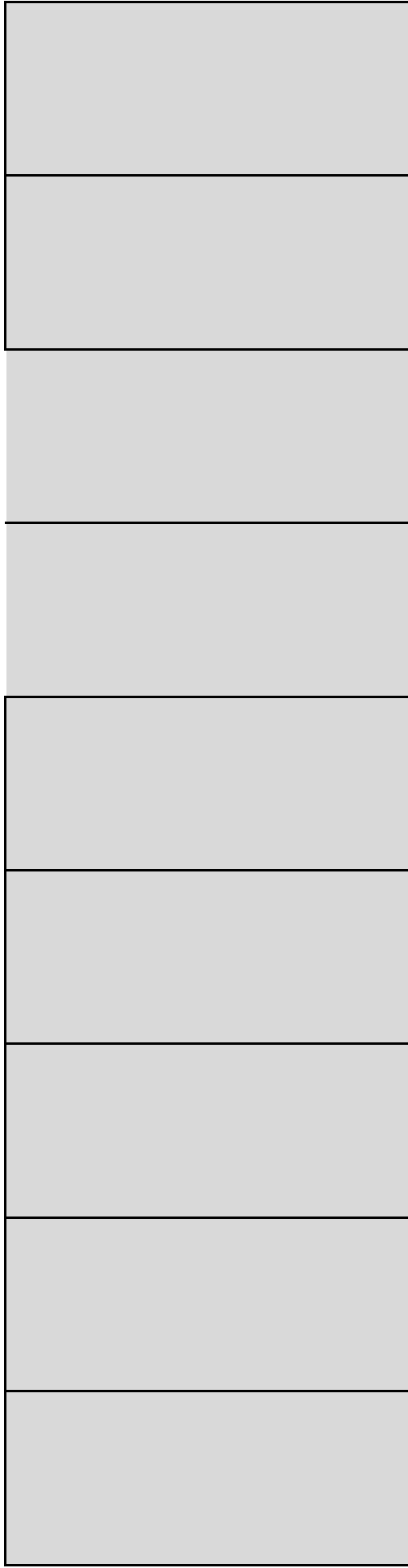




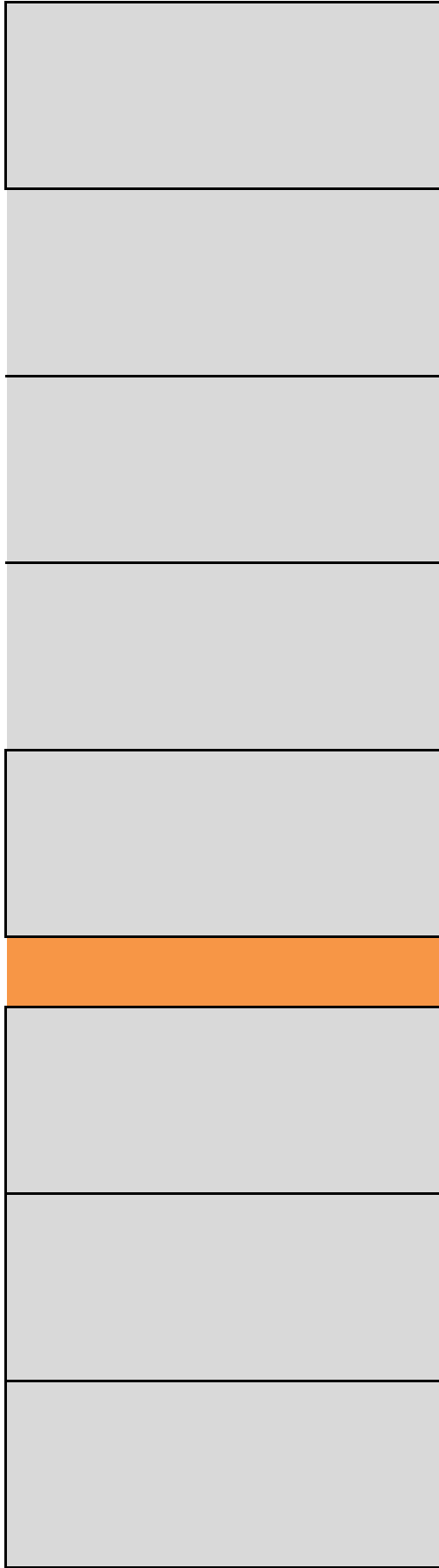
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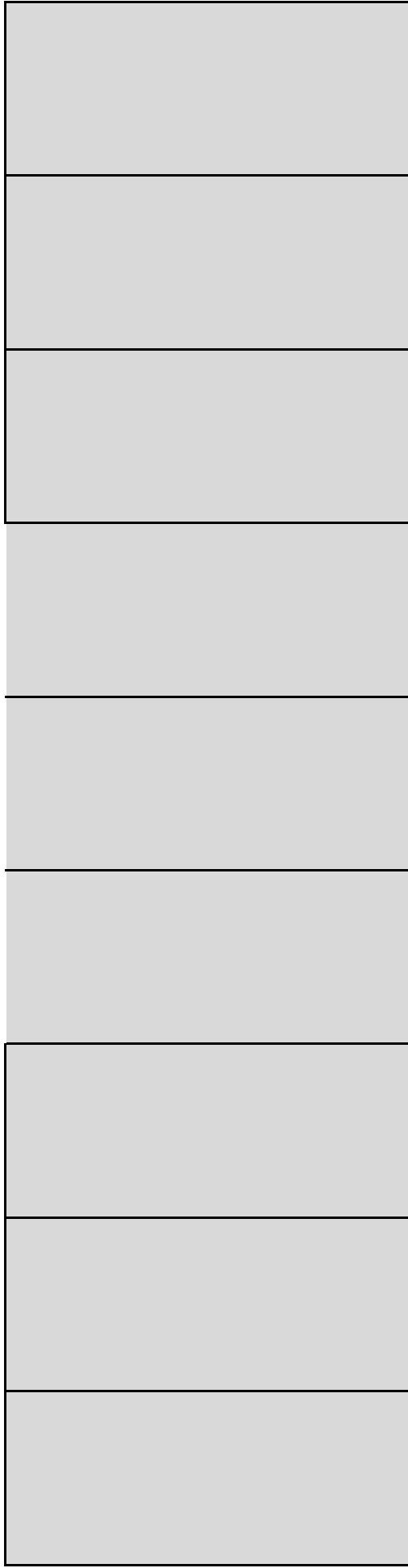
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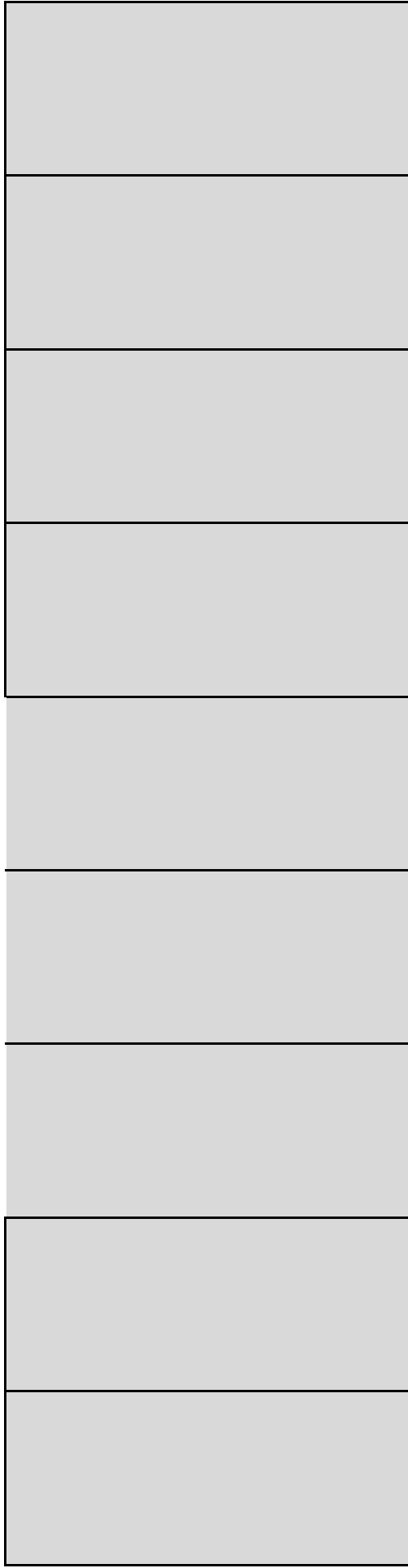
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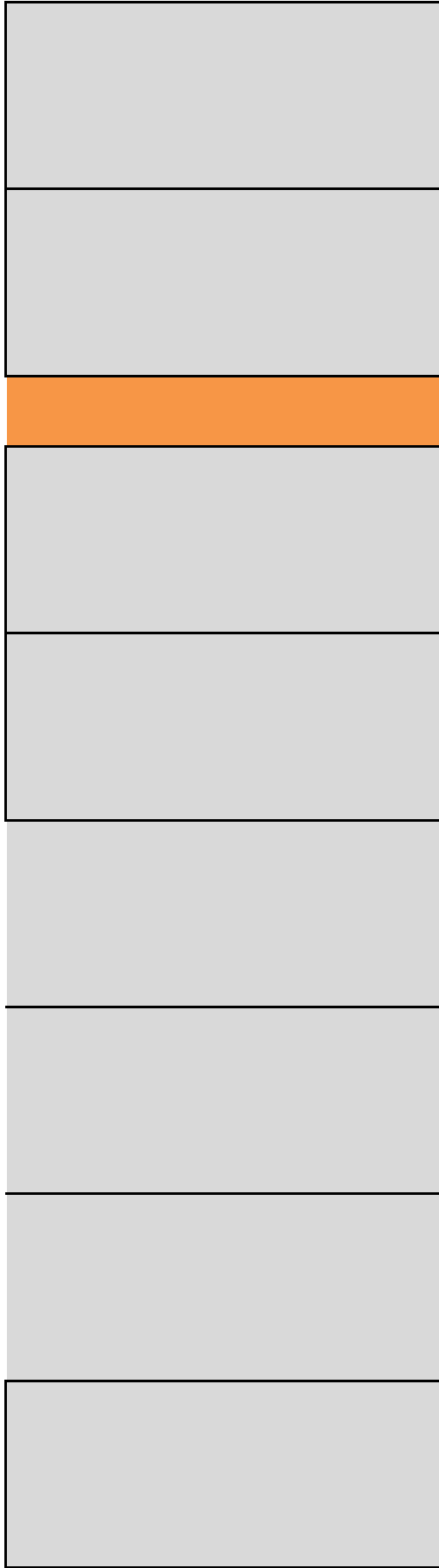
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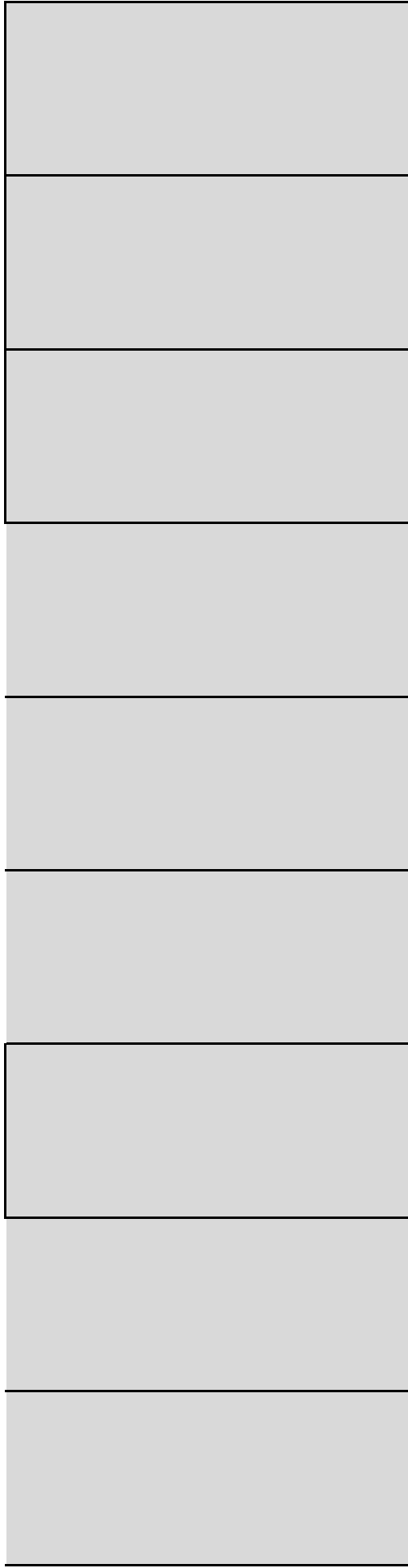


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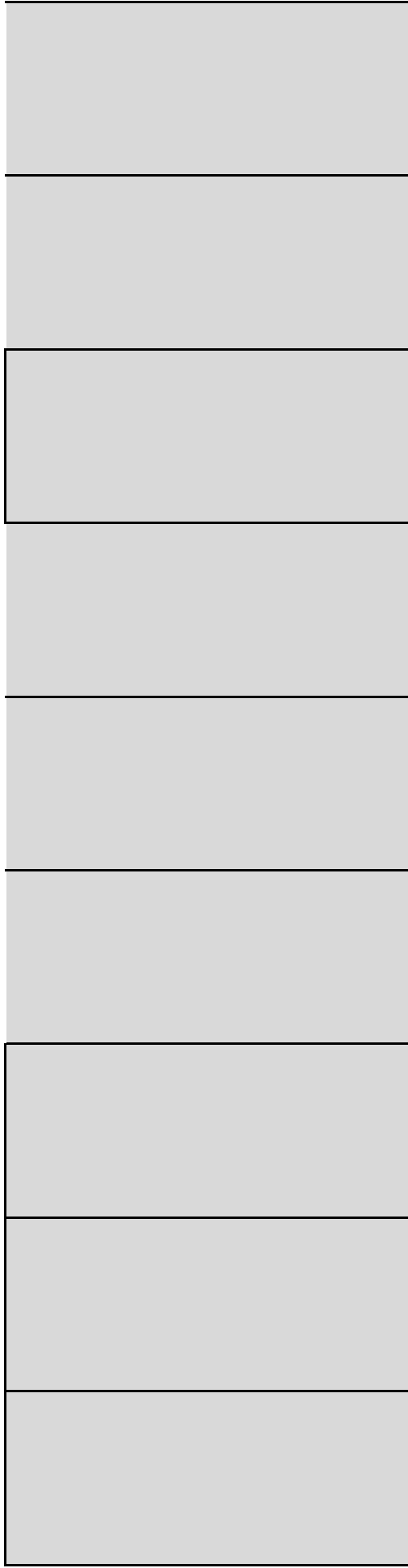
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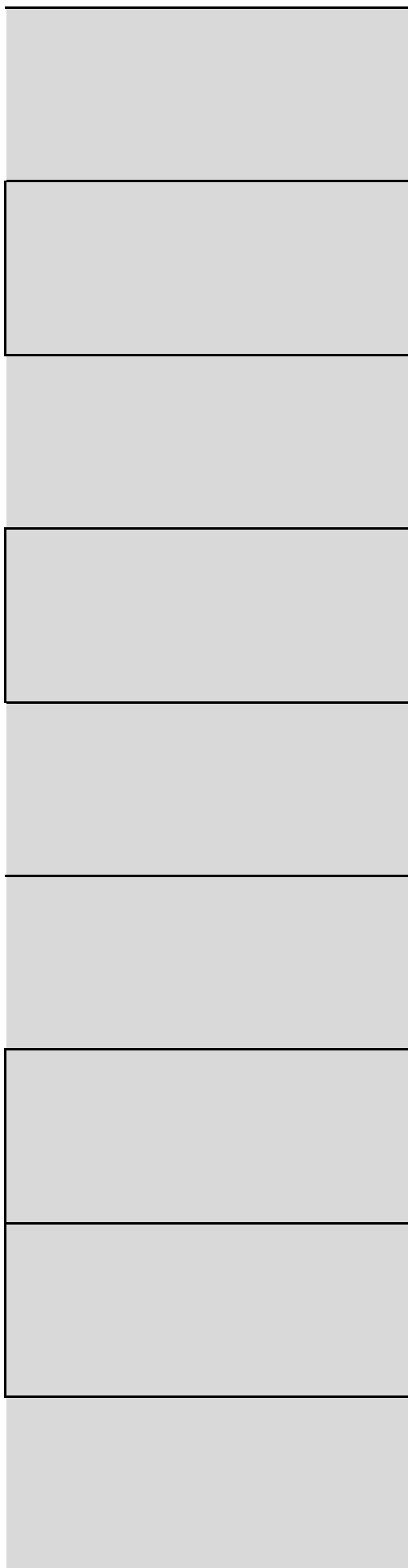
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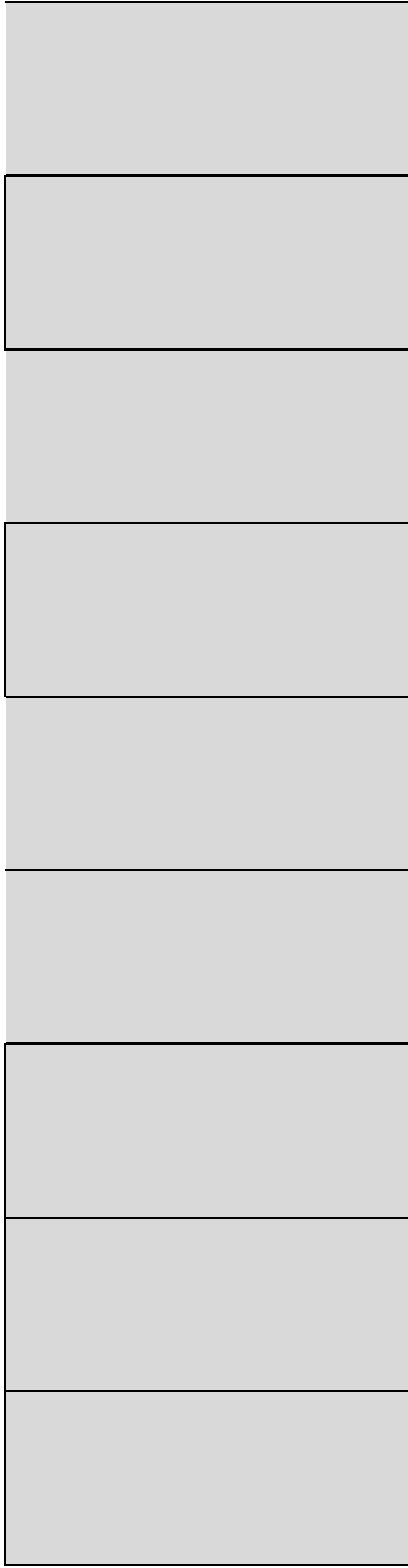
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Work Health and Safety Regulations 2012 (SA) (Chapter 10, Mines) Gap Analysis Tool

Purpose

The Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC) *Work Health and Safety Regulations 2012* (SA) Gap Analysis Tool is designed as a practical and proactive means for an organisation to:

- 1.) Complete an initial (benchmark) self-assessment of internal compliance with the *Work Health and Safety Regulations 2012* (SA) that are relevant to mining and quarrying operations within South Australia. It is intended that Mining and Quarrying Occupational Health and Safety Committee Work Health and Safety Specialists will assist in the initial review as part of the initial evaluation.
- 2.) Measure and monitor Work Health and Safety Regulatory compliance on a regular basis. The *Work Health and Safety Regulations 2012* (SA) Gap Analysis Tool is dated and keeps a running score, hence it is easy to monitor and measure improvements that take place over a period of time by re-using the tool periodically as required.
- 3.) Develop and implement an associated Improvement Action Plan, which is automatically generated when recommendations are entered in the Assessment sheet. This can then be used as a tool for planning, prioritising, resourcing, implementing or reviewing Work Health and Safety Systems by the organisations, Work Health and Safety Committees or teams, etc.
- 4.) Plan and encourage progression to a higher level of conformance / compliance via continuous improvement and in the process, systematically eliminate or reduce the risk and cost of workplace incidents, injuries and disease / illness occurring.

Answering and scoring questions

The questions are grouped together in the assessment section under the relevant Chapters of the *Work Health and Safety Regulations 2012* (SA).

Each question is required to be rated either:

ZERO (0) = No evidence of conformance or action taken;

ONE (1) = Evidence of some action taken, i.e. partial conformance; or

TWO (2) = Fully conforms with requirement.

The Tool has been designed for businesses of all types and sizes to measure and verify their level of conformance with the *Work Health and Safety Regulations 2012* (SA), by scoring each question in the assessment. Once you have entered the name of your organisation, location, person(s) carrying out the assessment and date, it is simply a matter of going through each question and entering a score of 0, 1 or 2, based on the level of conformance with the question being asked. A drop down box containing these options is indicated by an arrow located at the bottom right hand corner of each scoring tab. A score of 0 (red) indicates that there is no evidence of conformance or action taken; a score of 1 (orange) indicates that some action has been taken, or there is some evidence of conformance; and a score of 2 (green) indicates that this requirement has been fully complied with. If you answer the assessment question as a 1 or 2 you should be able to complete the "Verification / Evidence and Comments" sections to:

- Prove it (e.g. refer to documented evidence to support your response; policy, procedure, records etc.)
- Demonstrate that there has been appropriate consultation in development and implementation
- Demonstrate that there has been appropriate training, if required
- Demonstrate that the action is being implemented

- Demonstrate that you understand the requirements of the question.

Improvement Plan

An entry in the "Recommended Actions " section of the Assessment will automatically transfer into the attached Action Plan. This is then required to be completed by the person conducting a business or undertaking (PCBU) in terms of :

- 1) What action is to be taken to meet the requirement;
- 2) Who will be responsible to ensure this action occurs;
- 3) How long will be required to complete it; and
- 4) What the measure for success will be.

Once all of these details have been entered and the headings completed (including entering the business name, location and date), the Action Plan is now ready for implementation. Spaces in the Plan will need to be removed manually where no action is required. The document will now be ready to print with your updated details. This can be re-entered, modified and saved as many times as you like to create an ongoing record of the development and progress made on your Work Health and Safety regulatory compliance, whilst encouraging consultation and participation of workers.

It is important to note that it is up to the organisation to ensure that the actions, responsibilities and timeframes given are practical, achievable and meet the recommendations of the assessment. As circumstances change it may be necessary to adjust and alter the Plan on an ongoing basis. This will need to be done in consultation and agreement with the Officer who will be monitoring the progress being made.

Note: The *Work Health and Safety Regulations 2012* (SA) Gap Analysis Tool and Action Plan is a live document that needs to be constantly reviewed and updated as your organisation works towards full compliance.

Progressing through the program

The ultimate aim of your organisation should be to achieve 100% conformance with the requirements. It is recognised that, for smaller organisations in particular, this may not be achievable in the immediate future and that it may require some time to achieve this goal. The most important thing is that the organisation has a genuine commitment from top to bottom to build an Work Health and Safety culture that is based on continuous improvement, and that all significant hazards and risks are identified and eliminated, or at least controlled as far as is reasonably practicable. The Action Plan should be a reflection of this ongoing evolution and improvement.

Using the tool across several sites

For those organisations that have multiple sites or departments etc. this tool is ideal for regularly measuring conformance of each site for comparative purposes, or to get an overall picture of the organisation as a whole. This should also encourage those sites that do not measure up as well, to improve their performance and "close the gaps" identified, as well as "raising the bar" for the entire organisation in terms of Work Health and Safety Management Standards.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

This assessment tool addresses most key Work Health and Safety Regulation requirements, but not all. Compliance with this tool does not guarantee full compliance with all Work Health and Safety legal requirements, nor that the person conducting the business or undertaking (PCBU) is immune from enforcement action by the state Regulator.

The legislation mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

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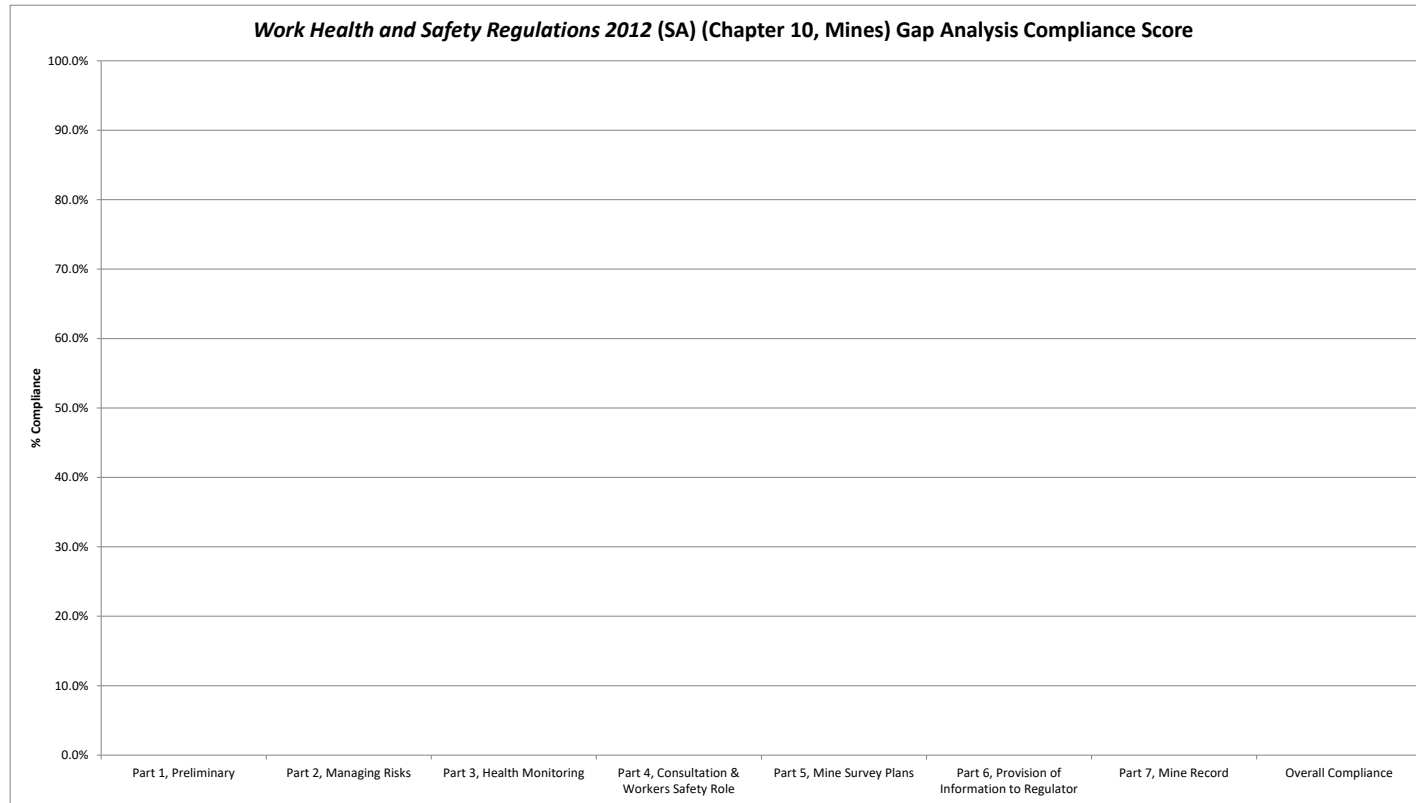
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Work Health and Safety Regulations 2012 (SA)	% Compliance
Part 1, Preliminary	0.0%
Part 2, Managing Risks	0.0%
Part 3, Health Monitoring	0.0%
Part 4, Consultation & Workers Safety Role	0.0%
Part 5, Mine Survey Plans	0.0%
Part 6, Provision of Information to Regulator	0.0%
Part 7, Mine Record	0.0%
Overall Compliance	0.0%



Work Health and Safety Regulations 2012 (SA) (Chapter 10, Mines) Gap Analysis Tool

Regulation	Title	Requirement	Conducted by:	Assisted by :	Date:	
Chapter 10, Mines						
Part 1, Preliminary			Verification / Evidence	Comments	Compliance Score	Recommended Action
609	Meaning of mine	Information only				
610	Meaning of mining operations	Information only				
611	Meaning of mineral	Information only				
612	Meaning of principal mining hazard	Information only				
613	Meaning of mine operator	Information only				
614	Meaning of mine holder	Information only				
615	Appointment of mine operator	An appointment of a person to be the mine operator of a mine must be in writing, be made in the manner and form required by the regulator, include a signed statement that the person to be appointed as mine operator agrees to the appointment and specify: the name and contact details of the mine operator, including postal and business addresses, date the appointment takes effect and describe the location of the mine, including: the boundaries of all extraction and exploration sites and land title identification.				
616	Notification of mine operator to regulator	The mine holder of a mine must give notice to the regulator the details of the mine operator.				
Part 2 - Managing Risks						
Division 1 General Requirements						
Sub Division 1 Control of Risk			Verification / Evidence	Comments	Compliance Score	Recommended Action
617	Managing risks to health and safety	2. A person conducting a business or undertaking at a mine must ensure that a risk assessment is conducted by a competent person for the purposes of subregulation (1).				
		3. In conducting a risk assessment, the person must have regard to— (a) the nature of the hazard; and (b) the likelihood of the hazard affecting the health or safety of a person; and (c) the severity of the potential health and safety consequences.				
618	Review of control measures	1. A person conducting a business or undertaking at a mine must review and as necessary revise control measures implemented under regulation 617 in the following circumstances: (a) an audit of the effectiveness of the safety management system for the mine indicates a deficiency in a control measure; (b) a worker is moved from a hazard or assigned to different work in response to a recommendation contained in a health monitoring report provided under Part 3; (c) an incident referred to in regulation 675V occurs.				
		2. The mine operator of a mine must ensure that a control measure that is the subject of a request by a health and safety representative under regulation 38(4) is reviewed and as necessary revised, whether the request is made directly to the mine operator or notified to the mine operator under subregulation (3) by another person conducting a business or undertaking at the mine.				
619	Record of certain reviews of control measures—mine operator	1. This regulation applies to a mine operator at a mine who has, under regulation 38, reviewed a control measure in response to— (a) a notifiable incident; or (b) an incident referred to in regulation 675V.				
		2. The mine operator at a mine must keep a record of the following: (a) the work health and safety issues arising from the incident; (b) recommendations arising from consideration of the incident; (c) a summary of any changes to the safety management system for the mine and any affected principal mining hazard management plan for the mine.				
620	Record of certain reviews of control measures - other persons conducting a business or undertaking	1. This regulation applies to a person conducting a business or undertaking at a mine, other than the mine operator, who has, under regulation 38, reviewed a control measure in response to a notifiable incident.				
		2. A person conducting a business or undertaking at a mine must keep a record of the following: (a) the work health and safety issues arising from the incident; (b) recommendations arising from consideration of the incident.				

Sub Division 2, Safety management system			Verification / Evidence	Comments	Compliance Score	Recommended Action
621	Duty to establish and implement safety management system	1.The mine operator of a mine must establish a safety management system for the mine.				
		2. The mine operator must implement the safety management system for the mine, so far as is reasonably practicable.				
		3. The safety management system must form part of any overall management system that is in place at the mine.				
		4. The safety management system must be designed to be used by the mine operator as the primary means of ensuring, so far as is reasonably practicable— (a) the health and safety of workers at the mine; and (b) that the health and safety of other persons is not put at risk from the mine or work carried out as part of mining operations.				
		5. Subject to subregulation (6), the safety management system must provide a comprehensive and integrated system for the management of all aspects of risks to health and safety in relation to the operation of the mine.				
		6. The safety management system must comply with subregulation (5) to the extent appropriate to the mine having regard to— (a) the nature, complexity and location of the mining operations; and (b) the risks associated with those operations.				
		7. The safety management system must be documented.				
		8. The mine operator of a mine that is also a determined major hazard facility is not required to establish a safety management system under regulation 558 for the operation of the major hazard facility if— (a) the mine operator has established a safety management system for the facility for the purposes of this regulation; and (b) the system deals with all matters required to be addressed by a safety management system under regulation 558 and includes all matters specified in Schedule 17; and (c) the system is readily accessible to persons who use it.				
622	Content of safety management system	The safety management system document for a mine must set out the following:				
		(a) the mine operator's health and safety policy, including broad aims in relation to the safe operation of the mine;				
		(b) the arrangements for managing risks in accordance with regulation 617;				
		(c) the systems, procedures, plans and other control measures that will be used to control risks to health and safety associated with mining operations at the mine, including— (i) the principal mining hazard management plans for the mine prepared under Division 2; and (ii) in the case of an underground mine—the ventilation control plan and ventilation plan prepared for the mine under Division 4 Subdivision 2;				
		(d) the management structure for the management of work health and safety at the mine, including— (i) arrangements for filling temporary and permanent vacancies; and (ii) requirements relating to acting positions in the structure; and (iii) the competency requirements for positions in the structure;				
		(e) the arrangements in place, between any persons conducting a business or undertaking at the mine, for consultation, co-operation and the co-ordination of activities in relation to compliance with their duties under the Act;				
		(f) if a contractor is working or likely to work at the mine—the control measures that will be used to control risks to health and safety associated with the contractor's work at the mine, including— (i) how the contractor's work management system will be integrated with the safety management system for the mine; and (ii) the process for assessing health and safety policies and procedures (including competency requirements) of the contractor and integrating them into the safety management system; and (iii) the arrangements for monitoring and evaluating compliance by the contractor with the health and safety requirements of the safety management system;				
		(g) the emergency procedures and all other matters in the emergency plan for the mine prepared under Division 5;				
		(h) the procedures and conditions under which persons at the mine or a part of the mine are to be withdrawn to a place of safety and to remain withdrawn as a precautionary measure where a risk to health and safety warrants that withdrawal;				
		(i) the arrangements for the provision of information, training and instruction required under regulation 39;				
		(j) the induction procedures for workers at the mine;				

		(k) the arrangements in place for the supervision needed to protect workers and other persons at the mine from risks to their health and safety from work carried out at the mine;				
		(l) the arrangements in place for health monitoring under Part 3;				
		(m) the safety role for workers developed under Part 4;				
		(n) the procedures for notifiable incident response and investigation at the mine;				
		(o) the procedures for records management for the mine to ensure compliance with the Act;				
		(p) the arrangements in place for all other monitoring and assessment and regular inspection of the working environment of the mine to be carried out for the purposes of the Act;				
		(q) the performance management system under regulation 623;				
		(r) the resources that will be applied for the effective implementation and use of the safety management system.				
		2. The safety management system document must— (a) contain a level of detail of the matters referred to in subregulation (1) that is appropriate to the mine having regard to— (i) the nature, complexity and location of the mining operations; and (ii) the risks associated with those operations; and (b) so far as is reasonably practicable, be set out and expressed in a way that is readily understandable by persons who use it.				
623	Performance standards and audit	The safety management system for a mine must include the following:				
		(a) performance standards for measuring the effectiveness of all aspects of the safety management system that— (i) are sufficiently detailed to show how the mine operator will ensure the effectiveness of the safety management system; and (ii) include steps to be taken to continually improve the safety management system;				
		(b) the way in which the performance standards are to be met;				
		(c) a system for auditing the effectiveness of the safety management system for the mine against the performance standards, including the methods, frequency and results of the audit process.				
624	Maintenance	The mine operator of a mine must maintain the safety management system for the mine so that the safety management system remains effective.				
625	Review	1. The mine operator of a mine must ensure that the safety management system for the mine is reviewed at least once every 3 years and as necessary revised to ensure it remains effective.				
		2. In addition, if a risk control measure is revised under regulation 38 or 618, the mine operator must ensure that the safety management system for the mine is reviewed and as necessary revised in relation to all aspects of risk control addressed by the revised control measure.				
		3. In addition, if the mine is a determined major hazard facility, the mine operator for the mine must review and as necessary revise the safety management system if a circumstance referred to in regulation 559(2) exists.				
Sub Division 3, Information to adjoining mine operators			Verification / Evidence	Comments	Compliance Score	Recommended Action
626	Duty to provide information to mine operator of adjoining mine	The mine operator of a mine must as soon as practicable, on request, provide to the mine operator of any adjoining mine any information that the mine operator has about conditions at the mine or any activities or proposed activities at the mine that could create a risk to the health and safety of persons at the adjoining mine.				
Division 2 - Principal Mining Hazard Management Plans			Verification / Evidence	Comments	Compliance Score	Recommended Action
627	Identification of principal mining hazards and conduct of risk assessments	1. The mine operator of a mine must identify all principal mining hazards at the mine.				
		2. The mine operator must conduct, in relation to each principal mining hazard identified, a risk assessment that involves a comprehensive and systematic investigation and analysis of all aspects of risk to health and safety associated with the principal mining hazard.				

		3. The mine operator, in conducting a risk assessment under subregulation (2), must— (a) use investigation and analysis methods that are appropriate to the principal mining hazard being considered; and (b) consider the principal mining hazard individually and also cumulatively with other hazards at the mine.				
628	Preparation of principal mining hazard management plan	1. The mine operator of a mine must prepare a principal mining hazard management plan for each principal mining hazard at the mine, having regard to the matters set out in Schedule 19.				
		2. A principal mining hazard management plan must— (a) provide for the management of all aspects of risk control in relation to the principal mining hazard; and (b) so far as is reasonably practicable, be set out and expressed in a way that is readily understandable by persons who use it.				
		3. A principal mining hazard management plan must—				
		(a) describe the nature of the principal mining hazard to which the plan relates; and				
		(b) describe how the principal mining hazard relates to other hazards at the mine; and				
		(c) describe the analysis methods used in identifying the principal mining hazard to which the plan relates; and				
		(d) include a record of the risk assessment conducted in relation to the principal mining hazard; and				
		(e) describe the investigation and analysis methods used in determining the control measures to be implemented; and				
		(f) describe all control measures to be implemented to manage risks to health and safety associated with the principal mining hazard; and				
		(g) describe the arrangements in place for providing the information, training and instruction required by regulation 39 in relation to the principal mining hazard; and				
		(h) refer to any design principles, engineering standards and technical standards relied on for control measures for the principal mining hazard; and				
		(i) set out the reasons for adopting or rejecting all control measures considered.				
629	Review	1. The mine operator of a mine must ensure that a principal mining hazard management plan is reviewed and as necessary revised if a risk control measure specified in the plan is revised under regulation 38 or 618.				
		2. If a principal mining hazard management plan is revised, the mine operator must record the revisions, including any revision of a risk assessment, in writing in the plan.				
Division 3, Specific control measures—all mines						
Sub Division 1 - Operational controls			Verification / Evidence	Comments	Compliance Score	Recommended Action
630	Communication between outgoing and incoming shifts	The mine operator of a mine at which more than 1 shift is worked each day must implement a system that ensures that, as soon as practicable at the commencement of each shift— (a) the supervisor of each outgoing shift provides a written report to the supervisor of the incoming shift, in relation to the state of the mine workings and plant and any other matters that relate to work health or safety; and (b) the supervisor of the incoming shift communicates the content of the report to the workers on the incoming shift.				
631	Movement of mobile plant	2. In managing risks to health and safety associated with the movement of mobile plant at the mine, the mine operator must have regard to all relevant matters including the following: (a) the design, layout, construction and maintenance of all roads and other areas at the mine used by mobile plant; (b) interactions between mobile plant, especially between large and small mobile plant; (c) interactions between mobile plant and fixed plant or structures; (d) interactions between mobile plant and pedestrians (including the use of pre-movement warnings for mobile plant in mine workings); (e) the operation of remotely controlled mobile plant; (f) the maintenance, testing and inspection of brakes, steering, lights and other safety features of the mobile plant.				
632	Prohibited uses	The mine operator of a mine must take all reasonable steps to ensure an item or substance specified in Schedule 20, column 1 is not used in a place or for a purpose that is prohibited or restricted as set out in Schedule 20, column 2 opposite that item or substance.				
633	Closure, suspension or abandonment of mine	1. If the mine operator of a mine closes the mine, the mine operator must, at the time of the closure, ensure, so far as is reasonably practicable, that the mine is safe, including by being secure against unauthorised entry by any person.				
		2. If mining operations at a mine are suspended, the mine operator must ensure, so far as is reasonably practicable, that the mine is safe, including by being secure against unauthorised entry by any person, during the period of suspension.				
		3. The mine operator of a mine must not abandon the mine.				
634	Minimum age to work in mine	The mine operator of a mine must take all reasonable steps to ensure that— (a) a person under the age of 16 years is not engaged to carry out work in any open cut workings or in an underground mine; and (b) a person under the age of 18 years is not engaged to carry out work in an underground mine, unless the person is over the age of 16 years and is an apprentice or trainee under direct supervision in relation to the work.				

Sub Division 2 - Air quality and monitoring			Verification / Evidence	Comments	Compliance Score	Recommended Action
635	Temperature and moisture content of air	In complying with regulation 617, the mine operator of a mine must— (a) manage risks to health and safety associated with extremes of either or both the temperature and moisture content of air; and (b) if risks associated with extreme heat exist in an underground mine—implement control measures (including monitoring) to manage heat stress in places in the mine where— (i) persons work or travel; and (ii) the wet bulb temperature exceeds 27°C.				
636	Ensuring exposure standards for dust not exceeded	The mine operator of a mine must ensure that no person at the mine is exposed to 8-hour time-weighted average atmospheric concentrations of airborne dust that exceed— (a) for respirable dust—3.0 mg per cubic metre of air; (b) for inhalable dust—10.0 mg per cubic metre of air.				
637	Monitoring exposure to airborne dust	Regulation 50 applies to the mine operator of a mine in relation to airborne dust as if the concentration of airborne dust referred to in regulation 636(1)(a) or (b) were an exposure standard to which regulation 50 applies.				
638	Air monitoring—use of devices	The mine operator of a mine who uses air monitoring devices to comply with air monitoring requirements under regulation 50 and this Chapter must ensure that— (a) the devices used are suitable and effective having regard to— (i) the nature of the monitoring being carried out; and (ii) the substance being monitored; and (b) the devices are positioned to ensure that they work to best effect.				
639	Air monitoring—signage	The mine operator of a mine, in complying with air monitoring requirements under regulation 50 and this Chapter, must ensure that signs are erected at the mine that explain— (a) the meaning of any warning produced by an air monitoring device; and (b) what persons must do in response to the warning.				
Sub Division 3 - Fitness for work			Verification / Evidence	Comments	Compliance Score	Recommended Action
640	Fatigue	In complying with regulation 617, the mine operator of a mine must manage risks to health and safety associated with worker fatigue.				
641	Alcohol and drugs	1. In complying with regulation 617, the mine operator of a mine must manage risks to health and safety associated with the consumption of alcohol by workers.				
		2. In complying with regulation 617, the mine operator of a mine must manage risks to health and safety associated with the use of drugs by workers.				
Division 4, Specific control measures—underground mines						
Sub Division 1 - All underground mines—operational controls			Verification / Evidence	Comments	Compliance Score	Recommended Action
642	Inrush hazards	1. The mine operator of an underground mine must implement a system for the mine that ensures— (a) the identification of all reasonably foreseeable inrush hazards at the mine; and (b) the determination of the presence and location of an inrush hazard by exploratory bore-holes (including a way of sealing or otherwise controlling a bore-hole to prevent inrush) or other exploratory methods; and (c) communication of the location of identified inrush hazards, including inrush hazards being approached, to all affected persons; and (d) the determination of whether or not an identified inrush hazard is a principal mining hazard; and (e) if an identified inrush hazard is a principal mining hazard—the identification, establishment and maintenance of an inrush control zone for the inrush hazard in accordance with this regulation.				
		2. An inrush control zone must be located in the vicinity of the inrush hazard and— (a) if the exact location of the inrush hazard is known—extend at least 50 metres from the location of the inrush hazard; or (b) if the exact location of the inrush hazard is not known—extend any greater distance from the suspected location of the inrush hazard determined by a risk assessment conducted under regulation 627.				
		3. The mine operator must ensure, in relation to each inrush control zone, that control measures and procedures are implemented to control the risk of inrush.				
		4. The mine operator must ensure that an inrush control zone is not mined before— (a) control measures and procedures have been implemented under subregulation (3); and (b) the persons who are to work in the zone have been trained in relation to the implementation of those controls and procedures.				

		5. If an identified inrush hazard is not at an accessible place at the mine, it is sufficient to control the risk from inrush by— (a) providing adequate separation of solid rock between the mine workings and the assessed worst case position of the potential source of inrush; and (b) complying with the requirements of any applicable principal mining hazard management plan prepared for inrush hazards.				
		6. The mine operator of an underground mine, before connecting any underground mine workings at the mine to any other workings (including disused workings), must— (a) ensure that the other workings are inspected for water, gas and any other circumstance that may be an inrush hazard; and (b) if it is not possible to safely gain access to the workings to be connected— ensure that exploratory bore-holes or other exploratory methods are used to determine the location of the other workings.				
643	Connecting workings	1. The mine operator of an underground mine must ensure that, if 2 working faces are approaching each other at an underground mine, 1 of the workings is stopped, made safe and barricaded as soon as practicable before the distance separating the faces creates a risk to health or safety.				
		2. The mine operator of an underground mine, before connecting any underground mine workings to any other workings (including disused workings) must ensure that the other workings are inspected for water, gas, misfires, butts and any other circumstance that may be a risk to the health or safety of any person at the mine, other than a risk associated with an inrush hazard.				
644	Winding systems	1. The mine operator of an underground mine must ensure that every winding system used or that may be put into use at the mine includes the following: (a) ropes that will enable the shaft conveyance to bear the weight that can reasonably be expected to be borne by the shaft conveyance; (b) controls and limiting devices to prevent any shaft conveyance from being overwound or overrun or from travelling at an unsafe speed; (c) brakes that can bring the system to rest; (d) devices that detect slack rope or drum slip conditions, or tail rope malfunctions; (e) devices that cause the winder to stop when a condition or malfunction referred to in paragraph (d) is detected; (f) warning systems to alert persons at the mine to any emergency in a shaft; (g) remote monitoring of the functions of the system; (h) an effective means of communication— (i) between the surface and any shaft conveyance used for carrying persons; and (ii) between the point of control of the winder and the entry to every shaft that is in use.				
		2. The mine operator must ensure that the winding system for each shaft that is in use or that may be put into use at the mine, and all components of the winding system, are tested at intervals that ensure the safe performance of the system.				
		3. The mine operator must ensure that energy lockout devices are fitted to all mechanical and electrical plant associated with any shaft at the mine, including any mechanical and electrical plant associated with the operation, maintenance or use of the shaft.				
645	Operation of shaft conveyances	1. The mine operator of an underground mine must ensure that material or plant being carried in a shaft conveyance— (a) does not protrude from the shaft conveyance, while it is moving, so as to contact a wall of the shaft or any thing in the shaft; and (b) is so secured to the shaft conveyance that it cannot leave the shaft conveyance except by being deliberately removed.				
		2. The mine operator of an underground mine must ensure that persons being carried in a shaft conveyance are adequately protected from another shaft conveyance in the same shaft and from any material or plant being carried by the other shaft conveyance.				
		3. The mine operator of an underground mine must ensure that, if a shaft conveyance that combines a cage and skip is used, material is not carried in the skip while persons are being carried in the cage.				
		4. The mine operator of an underground mine must ensure that control measures are implemented to prevent a shaft conveyance from becoming detached or falling down the shaft.				
		5. The mine operator of an underground mine must ensure, so far as is reasonably practicable, that facilities for loading material or plant onto or into a shaft conveyance are designed and operated so as to prevent spillage into the shaft.				
646	Dust explosion	2. In managing risks to health and safety associated with dust at the mine, the mine operator must implement control measures that, so far as is reasonably practicable— (a) minimise the generation of potentially explosive dusts; and (b) suppress, collect and remove potentially explosive airborne dusts; and (c) suppress any dust explosion; and (d) restrict the propagation of any dust explosion so that other areas are not affected.				

Sub Division 2 - All underground mines—air quality and ventilation			Verification / Evidence	Comments	Compliance Score	Recommended Action
647	Air quality—airborne contaminants	1. The mine operator of an underground mine must ensure that the concentration of any airborne contaminant (including any asphyxiant or explosive gas) is as low as is reasonably practicable.				
		2. The mine operator must comply with subregulation (1)— (a) so far as is reasonably practicable, by suppression or the installation of a ventilation or exhaust extraction system; or (b) if this is not reasonably practicable, by some other suitable means.				
648	Air quality—minimum standards for ventilated air	1. The mine operator of an underground mine must ensure that the ventilation system for the mine provides air that is of sufficient volume, velocity and quality to ensure that the general body of air in the areas in which persons work or travel— (a) has a concentration of oxygen that is at least 19.5% under normal atmospheric pressure; and (b) has dust levels that— (i) are as low as is reasonably practicable; and (ii) do not exceed the relevant levels specified in regulation 636; and (c) if diesel engines are used underground—has a concentration of diesel particulates that is as low as is reasonably practicable.				
		2. In addition to subregulation (1), the mine operator of an underground mine must ensure that the ventilation system for the mine provides air that is of sufficient quality to ensure that the general body of air in the areas in which persons work or travel has a level of contaminants that— (a) is as low as is reasonably practicable; and (b) does not exceed the exposure level for that contaminant specified in the relevant exposure standard referred to in regulation 49.				
649	Air monitoring—air quality	The mine operator of an underground mine must ensure that air monitoring is carried out at the mine if the mine operator is not certain on reasonable grounds whether or not regulation 648 is being complied with.				
650	Requirements if air quality requirements and exposure standards not complied with	1. This regulation applies if monitoring reveals that in an underground mine— (a) the oxygen level specified in regulation 648(1)(a) is not met; or (b) a dust level referred to in regulation 648(1)(b)(ii) is exceeded; or (c) an exposure level referred to in regulation 648(2)(b) is exceeded.				
		2. The mine operator of an underground mine must immediately notify any affected workers or other persons at the mine of the relevant circumstance referred to in subregulation (1).				
		3. The mine operator of an underground mine must ensure that the air quality at the mine is retested by a competent person as soon as practicable.				
651	Records of air monitoring	1. The mine operator of a mine must keep a record of air monitoring carried out at the mine under regulation 649.				
		2. A record of air monitoring must include— (a) the results of the monitoring; and (b) details of the dates, location and frequency of the monitoring; and (c) the sampling method and equipment used.				
		3. A record of air monitoring carried out under regulation 649 must be kept for 7 years after the record is made.				
		4. The mine operator must keep a record of air monitoring available for inspection under the Act.				
		5. The mine operator must keep a record of air monitoring readily accessible to workers and other persons at the mine.				
652	Ventilation system—further requirements	1. The mine operator of an underground mine must ensure that the air supplied to the ventilation system at the mine is obtained from the purest source available.				
		2. The mine operator must ensure the following: (a) ventilation circuits at the mine do not allow uncontrolled recirculation of air; (b) plant and structures that regulate airflow are maintained in good working order; (c) unventilated headings are not entered unless— (i) the purpose of entry is to establish ventilation; and (ii) adequate auxiliary ventilation is provided to the person entering the heading.				
		3. The mine operator must ensure that, in areas of the mine where persons work or travel, the ventilation system for the mine provides an average air velocity of at least 0.3 metres per second measured across the work or travel area.				
653	Monitoring and testing of ventilation system	1. The mine operator of an underground mine must monitor and test all aspects of the operation of the ventilation system at intervals that ensure that the system complies with regulations 648 and 652.				
		2. The mine operator of a mine must keep a record of all monitoring and testing of the ventilation system at the mine for at least 7 years.				
		3. The mine operator must keep the record available for inspection under the Act.				
		4. The mine operator must keep the record readily accessible to workers and other persons at the mine.				

654	Duty to prepare ventilation control plan	1. The mine operator of an underground mine must ensure that a ventilation control plan is prepared to provide for the management of all aspects of ventilation at the mine.				
		2. The ventilation control plan must describe all control measures implemented in relation to ventilation at the mine.				
		3. Without limiting subregulation (2), the ventilation control plan must include a description of the following, if applicable to the mine: (a) the design and operation of the ventilation system, including the standards applying to the placement, operation, maintenance and monitoring of ventilation plant; (b) arrangements for inspecting, monitoring, maintaining and testing the ventilation system; (c) arrangements for managing risks to health and safety associated with potential inrush hazards and leakage into intake airways of atmospheric contaminants from goaf areas and abandoned sealed workings; (d) arrangements for managing risks to health and safety associated with intake air travelling across the face of a permanent seal at the mine; (e) arrangements for an alternate and independent way of operating the main ventilation fan system in the event of a loss of power supply to the main ventilation system; (f) arrangements for managing risks to health and safety associated with ignition sources, in the event that the ventilation system fails to adequately ventilate the mine; (g) procedures to ensure the health and safety of persons at the mine in the event of a total or partial ventilation failure for more than 30 consecutive minutes.				
655	Review of ventilation control plan	The mine operator of an underground mine must ensure that a ventilation control plan is reviewed and as necessary revised if a risk control measure specified in the plan is revised under regulation 38 or 618.				
656	Ventilation plan	1. The mine operator of an underground mine must ensure that a plan of the ventilation system for the mine is prepared.				
		2. The ventilation plan must show— (a) the direction, course and volume of air currents; and (b) the position of all air doors, stoppings, fans, regulators and other ventilation plant and structures and ventilation monitoring devices at the mine.				

Division 5, Emergency management

Sub Division 1 - Emergency plans for all mines			Verification / Evidence	Comments	Compliance Score	Recommended Action
664	Duty to prepare emergency plan	1. The mine operator of a mine must prepare an emergency plan for the mine in accordance with this Subdivision.				
		2. In addition to the matters required by regulation 43(1), the emergency plan must— (a) address all aspects of emergency response, including by ensuring— (i) the establishment of a system that enables all persons at the mine to be promptly located; and (ii) the provision of adequate rescue equipment; and (iii) that an adequate number of persons trained in the use of rescue equipment are available to respond effectively to the emergency if a person is working at the mine; and (iv) the provision of adequate patient transport if a person is working at a mine; and				
		(b) include all matters specified in Schedule 22; and				
		(c) so far as is reasonably practicable, be set out and expressed in a way that is readily understandable by persons who use it.				
		3. The emergency plan for a mine must comply with the matters in subregulation (2)(a) and (b) to the extent that the matters are applicable to the mine having regard to— (a) the nature, complexity and location of the mining operations; and (b) the risks associated with those operations.				
		4. The emergency plan for a mine must contain an appropriate level of detail about the matters set out in subregulation (2)(a) and (b) having regard to all relevant matters including— (a) the nature, complexity and location of the mining operations; and (b) the risks associated with those operations.				
		5. The mine operator of a mine that is also a determined major hazard facility is not required to prepare an emergency plan under regulation 557 for the major hazard facility if— (a) the mine operator has prepared an emergency plan for the facility for the purposes of this regulation; and (b) the plan addresses all matters required to be addressed in an emergency plan under regulation 557 and includes all matters specified in Schedule 16.				

665	Consultation in preparation of emergency plan	1. In preparing an emergency plan, the mine operator must consult with— (a) the primary emergency services with responsibility for the area in which the mine is located; and (b) any other emergency service organisation, including any mines rescue organisation, that may be required to participate in implementing the emergency plan; and (c) in relation to the principal mining hazards that may cause or contribute to an incident that may adversely affect the health and safety of persons in the area surrounding the mine—the local authority for the local authority area in which the mine is located; and (d) if the mine is a major hazard facility—the local authority in relation to the off-site health and safety consequences of a major incident occurring.				
		2. Subregulation (1)(a) does not apply to a mine operator who has on-site emergency resources and capability or access to off-site emergency resources and capability that are sufficient to address all aspects of emergency response at the mine.				
		3. The mine operator must ensure that the emergency plan addresses any recommendation made by the emergency service organisations consulted under subregulation (1) in relation to— (a) the testing of the emergency plan, including the way in which it will be tested, the frequency of testing and whether or not the emergency service organisations will participate in the testing; and (b) what incidents or events at the mine should be notified to the emergency service organisations.				
		4. The mine operator must have regard to any other recommendation or advice given by a person consulted under subregulation (1).				
666	Implementation of emergency plan	1. The mine operator of a mine must immediately implement the emergency plan for the mine in the event of an emergency.				
		2. If the mine is a determined major hazard facility, the mine operator must— (a) immediately implement the emergency plan if— (i) a major incident occurs in the course of the operation of the major hazard facility; or (ii) an event occurs that could reasonably be expected to lead to a major incident; and (b) notify the emergency service organisations consulted under regulation 665(1) of the occurrence of an incident or event referred to in regulation 665(3)(b).				
667	Copies to be kept and provided	1. The mine operator of a mine must keep a copy of the emergency plan at the mine.				
		2. The mine operator must ensure that a copy of the emergency plan is available on request to any emergency service organisation consulted under regulation 665(1)(a).				
668	Resources for emergency plan	The mine operator of a mine must ensure that— (a) all resources, including rescue equipment, specified in the emergency plan for the mine are provided in accordance with the plan; and (b) all equipment, including rescue equipment, specified in the emergency plan is maintained in good working order.				
669	Testing of emergency plan	1. The mine operator must test the emergency plan at least once a year having regard to the recommendations made by the emergency service organisations consulted under regulation 665 in preparing the plan.				
		2. In addition, if the mine is a determined major hazard facility, the mine operator must test the emergency plan in accordance with the recommendations made by the emergency service organisations referred to in regulation 665(1) before applying for a licence for the major hazard facility.				
670	Review	1. If a risk control measure is revised under regulation 38 or 618, the mine operator of the mine must ensure that the emergency plan is reviewed and as necessary revised in relation to all aspects of risk control addressed by the revised control measure.				
		2. In addition, if the mine is a determined major hazard facility, the mine operator for the mine must review and as necessary revise the emergency plan if a circumstance referred to in regulation 559(2) exists.				
		3. In reviewing and revising the emergency plan for the purposes of subregulation (2), the operator must consult with the emergency service organisations referred to in regulation 665.				

Sub Division 2 - Underground mines			Verification / Evidence	Comments	Compliance Score	Recommended Action
671	Emergency exits	1. The mine operator of an underground mine must ensure that the mine has at least 2 trafficable exits to the surface that comply with subregulations (2) and (3).				
		2. Each exit must— (a) be accessible from each level in the mine in which stoping operations are being carried out; and (b) allow for the passage of rescue persons and rescue equipment; and (c) be marked or signposted so that it can be readily located in an emergency; and (d) be maintained so that it remains effective.				
		3. The exits must be located so as to ensure, so far as is reasonably practicable, that an incident or event that occurs in relation to 1 exit, that prevents the exit from being used for the purpose of escape from the mine, does not prevent persons from using the other exit to escape.				
		4. The mine operator of a mine is not required to comply with subregulation (1) in either of the following circumstances if the mine operator ensures that the mine has at least 1 trafficable exit to the surface that complies with subregulation (2): (a) a single entry drive or shaft is being developed; (b) the most distant area of the mine is no more than 250 metres from the mine entrance.				
672	Safe escape and refuge	1. The mine operator of an underground mine must provide adequate means of communicating with all affected persons when the emergency plan for the mine is implemented.				
		2. The mine operator of an underground mine must provide adequate means of escape that enable persons to safely reach an exit or refuge, including through conditions of reduced visibility or irrespirable or unsafe atmospheres.				
673	Signage for refuges	The mine operator of an underground mine that includes a refuge must ensure that signs are prominently displayed at the mine showing the location of each refuge.				
674	Self-rescuers	1. The mine operator of an underground mine must ensure that a person who is to go underground is provided with an appropriate self-contained self-rescuer if there is a risk of an irrespirable atmosphere in the underground mine (including during an emergency).				
		2. The mine operator must ensure that the person is trained in the use of, and is able to use, the self-rescuer provided.				
675	Personal protective equipment in emergencies	2. The mine operator of the underground mine must ensure that oxygen or air supplied respiratory equipment is available for use by, and is provided to, the worker in an emergency in which— (a) the concentration of oxygen falls below a safe oxygen level; or (b) the atmosphere in the underground mine has a harmful concentration of an airborne contaminant; or (c) there is a serious risk of the atmosphere in the underground mine becoming affected in the way referred to in paragraph (a) or (b) while the worker is in the underground mine.				
		3. The mine operator must ensure that suitable personal protective equipment is available for use by, and is provided to, the worker in an emergency in which— (a) there has been an inundation or inrush of any substance in the underground mine; or (b) there is a serious risk of an inundation or inrush of any substance occurring while the worker is in the underground mine.				
		4. The mine operator must ensure, so far as is reasonably practicable, that a worker uses the personal protective equipment provided under subregulation (2) or (3).				
Division 6 - Information, training and instruction			Verification / Evidence	Comments	Compliance Score	Recommended Action
675A	Duty to inform workers about safety management system	1. The mine operator of a mine must ensure that, before a worker commences work at the mine— (a) the worker is given a summary of the safety management system for the mine that is relevant to the worker's work at the mine; and (b) the worker is informed of the right to see the documented safety management system for the mine prepared under regulation 621.				
		2. The mine operator must ensure that the documented safety management system is available on request to a worker at the mine.				
		3. The mine operator must ensure that— (a) a principal mining hazard management plan prepared under regulation 628 is readily accessible to a worker who is or may be exposed to the risks to which the plan relates; and (b) a ventilation control plan, prepared under regulation 654, is readily accessible to all workers at the mine; and (c) the emergency plan for the mine, prepared under regulation 664, is readily accessible to all workers at the mine.				
		4. If the safety management system is revised under regulation 625, the mine operator must ensure, so far as is reasonably practicable, that each worker at the mine is made aware of any revision that is relevant to work being carried out by the worker.				

675B	Duty to provide information, training and instruction	2. The mine operator of a mine must ensure that each worker at the mine is provided with suitable and adequate information, training and instruction in relation to the following: (a) all hazards associated with the work being carried out by the worker; (b) the implementation of risk control measures relating to the work being carried out by the worker, including controls in relation to fatigue, the consumption of alcohol and the use of drugs; (c) the content and implementation of the safety management system for the mine; (d) the emergency plan for the mine; (e) the safety role for workers implemented under regulation 675Q.				
675C	Information for visitors	The mine operator of a mine must ensure that a visitor who enters the mine with the authority of the mining operator is, as soon as practicable— (a) informed about risks associated with mining operations to which the visitor may be exposed at the mine; and (b) instructed in health and safety precautions the visitor should take at the mine; and (c) instructed in the actions the visitor should take if the emergency plan for the mine is implemented while the visitor is at the mine.				
675D	Review of information, training and instruction	The mine operator of a mine must ensure that information, training and instruction provided to workers under regulations 675A and 675B or to visitors under regulation 675C are reviewed and as necessary revised to ensure that they remain relevant and effective.				
675E	Record of training	The mine operator of a mine must— (a) make a record of any training provided to a worker under regulation 675B; and (b) keep the record while the worker remains engaged at the mine.				
Part 3, Health Monitoring			Verification / Evidence	Comments	Compliance Score	Recommended Action
675F	Health monitoring of worker	1. The mine operator of a mine must ensure that health monitoring is provided in accordance with subregulation (2) to a worker at a mine engaged to carry out work at a mine if— (a) there is a significant risk of an adverse effect on the worker's health because of the worker's exposure to a hazard associated with mining; and (b) valid techniques are available to detect that effect on the worker's health.				
		2. The health monitoring must be carried out— (a) in accordance with this Part; and (b) at intervals determined by a registered medical practitioner with experience in health monitoring.				
675G	Duty to inform of health monitoring	The mine operator of a mine, who is required to ensure that health monitoring is provided to a worker, must give information about the health monitoring requirements to— (a) a person who is likely to be engaged to carry out work that triggers the requirement for health monitoring; and (b) a worker at the mine, before the worker commences work that triggers the requirement for health monitoring.				
675H	Duty to ensure health monitoring is carried out or supervised by registered medical practitioner with experience	1. The mine operator of a mine must ensure, so far as is reasonably practicable, that the health monitoring of a worker under this Part is carried out by or under the supervision of a registered medical practitioner with experience in health monitoring.				
		2. The mine operator must ensure that the worker is consulted in relation to the selection of the registered medical practitioner.				
675I	Duty to pay costs of health monitoring	1. The mine operator of a mine who engages a worker at the mine must pay all expenses relating to health monitoring referred to in this Part.				
		2. If the mine operator of a mine has not engaged a worker at the mine, the mine operator must ensure that the person conducting the business or undertaking that engaged the worker pays all expenses relating to health monitoring.				
675J	Duty to provide registered medical practitioner with information	The person conducting a business or undertaking who commissions health monitoring for a worker must provide the following information to the registered medical practitioner carrying out or supervising the health monitoring: (a) the name and address of the mine operator; (b) the name and date of birth of the worker; (c) the work that the worker is, or will be, carrying out that has triggered the requirement for health monitoring; (d) if the worker has started the work—how long the worker has been carrying out the work.				

675K	Health monitoring report	1. Health monitoring must be documented in a health monitoring report in the form approved by the regulator. 2. The health monitoring report must include the following: (a) the name and date of birth of the worker; (b) the name and registration number of the registered medical practitioner; (c) the name and address of— (i) the mine operator; and (ii) the person conducting a business or undertaking who commissioned the health monitoring; (d) the date of the health monitoring; (e) an explanation of the results; (f) any advice indicating any adverse health effect resulting from exposure to a risk associated with mining operations; (g) any recommendation that the mine operator take remedial measures, including whether the worker can continue to carry out the type of work that triggered the requirement for health monitoring; (h) whether medical counselling is required for the worker in relation to the work that triggered the requirement for health monitoring.				
675L	Person conducting business or undertaking to obtain health monitoring report	The person conducting a business or undertaking who has commissioned health monitoring must take all reasonable steps to obtain a health monitoring report from the registered medical practitioner who carried out or supervised the monitoring as soon as practicable after the monitoring is carried out in relation to a worker.				
675M	Person conducting business or undertaking to give health monitoring report to mine operator of mine	A person conducting a business or undertaking must, on request, give a copy of the health monitoring report required to be kept under regulation 675P(1) to the mine operator of any mine at which the worker carries out work.				
675N	Duty to give health monitoring report to worker	The mine operator of a mine must take all reasonable steps to ensure that a worker at the mine who is provided with health monitoring is given a copy of the health monitoring report as soon as practicable after the monitoring is carried out.				
675O	Duty to give health monitoring report to regulator	The mine operator of a mine must take all reasonable steps to ensure that a copy of a health monitoring report relating to a worker at the mine is given to the regulator as soon as practicable if the report contains— (a) any advice indicating any adverse health effect resulting from exposure to a risk associated with mining operations; or (b) a recommendation that the mine operator should move the worker from a hazard or assign the worker to different work.				
675P	Health monitoring reports kept as records	1. The person conducting a business or undertaking that engaged a worker at the mine must ensure that a health monitoring report in relation to the worker is kept as a confidential record.				
		1a. The person must ensure that a health monitoring report in relation to a worker is kept for at least— (a) for hazards known to have a cumulative or delayed health effect—30 years after the record is made; or (b) for other hazards—7 years after the record is made.				
		2. A person conducting a business or undertaking who obtains a health monitoring report in relation to a worker under this Part must not disclose the report to another person without the worker's written consent.				
		3. Subregulation (2) does not apply if the report is disclosed to— (a) a mine operator to whom a copy report is given under regulation 675M; or (b) the regulator under regulation 675O; or (c) a new mine operator to whom all records are given under regulation 615(3); or (d) a person who must keep the report confidential under a duty of professional confidentiality; or (e) a health and safety representative in accordance with section 71(2) of the Act.				
		4. The person conducting a business or undertaking that engaged a worker at the mine must ensure, so far as is reasonably practicable, that any health monitoring report kept in relation to a worker under subregulation (1) is given to the worker if the business or undertaking at the mine is to be wound up or otherwise cease to exist.				
Part 4, Consultation and Workers' Safety Role			Verification / Evidence	Comments	Compliance Score	Recommended Action
675Q	Safety role for workers in relation to principal mining hazards	The mine operator of a mine must implement a safety role for the workers at the mine that enables them to contribute to— (a) the identification under regulation 627 of principal mining hazards that are relevant to the work that the workers are or will be carrying out; and (b) the consideration of control measures for risks associated with principal mining hazards at the mine; and (c) the conduct of a review under regulation 629.				

675R	Mine operator must consult with workers	For the purposes of section 49(f) of the Act, the mine operator of a mine must consult with workers at the mine in relation to the following:				
		(a) the development, implementation and review of the safety management system for the mine;				
		(b) conducting risk assessments for principal mining hazard management plans;				
		(c) preparing, testing and reviewing the emergency plan for the mine;				
		(d) the implementation of the workers' safety role under regulation 675Q;				
		(e) developing and implementing strategies to protect persons at the mine from any risk to health and safety arising from the following:				
		(i) the consumption of alcohol or use of drugs by any person;				
		(ii) worker fatigue.				
Part 5, Mine Survey Plans			Verification / Evidence	Comments	Compliance Score	Recommended Action
675S	Survey plan of mine must be prepared	1. The mine operator of a mine must ensure that a detailed survey plan of the mine is prepared by a competent person.				
		2. The plan must (unless it relates to a precious stones field under the Opal Mining Act 1995) reference the mine to the Geocentric Datum of Australia and the Australian Height Datum.				
		3. The plan must show the following (if present at the mine): (a) the workings of the mine, including disused workings and bore holes; (b) the location of electrical installations; (c) the location of telephones and other fixed plant associated with the radio and telecommunications systems; (d) water dams and tailings dams; (e) natural features surrounding the mine; (f) places for the storage of hydrocarbons or explosives; (g) points of entry and exit, including emergency exits; (h) refuges (in an underground mine).				
		4. In complying with subregulation (1), the mine operator of a mine must take all reasonable steps to obtain historical mine surveys of the mine to ensure the accuracy of the mine survey plan.				
675T	Review of survey plan	1. The mine operator of a mine must review and as necessary revise the mine survey plan— (a) if it no longer accurately reflects the workings that have been carried out at the mine or the workings that are proposed to be carried out at the mine; or (b) if there are reasonable grounds to believe that the mine survey plan is not accurate; or (c) at least once every 12 months.				
675U	Survey plan to be available	1. The mine operator of a mine must keep the current mine survey plan and all previous versions of the plan available for inspection under the Act.				
		2. The mine operator of a mine must make the current mine survey plan available on request to workers at the mine.				
Part 6, Provision of information to regulator			Verification / Evidence	Comments	Compliance Score	Recommended Action
675V	Duty to notify regulator of certain incidents	1. The mine operator of a mine must take all reasonable steps to ensure that the regulator is notified as soon as possible after becoming aware of an incident arising out of the carrying out of mining operations at the mine.				
		2. The notification must— (a) be in writing; and (b) be in a form required by the regulator; and (c) in the case of an incident that results in an illness or injury, contain the details specified in Schedule 23.				
675W	Quarterly reports	1. The mine operator of a mine must give the regulator a quarterly work health and safety report in accordance with this regulation.				
		2. The report must— (a) be given at the times or intervals (including annually) and in the manner and form required by the regulator; and (b) contain the information specified in Schedule 24.				
675X	Duty to notify mine operator of notifiable incidents	A person who conducts a business or undertaking at a mine must ensure that the mine operator is notified as soon as practicable of any incident that has been notified to the regulator under section 38 of the Act.				

Part 7, Mine Record			Verification / Evidence	Comments	Compliance Score	Recommended Action
675Y	Mine record	1. The mine operator of a mine must keep a mine record for the mine.				
		2. The mine record must contain— (a) a record of any notice issued in relation to the mine under Part 10 of the Act; and (b) a copy of any provisional improvement notice issued in relation to the mine under Part 5 Division 7 of the Act; and (c) a record of every incident notified to the regulator under Part 3 of the Act or under regulation 675V; and (d) a summary of all records kept under regulations 619 and 620; and (e) each report under regulation 630 by a shift supervisor at the mine.				
675Z	Mine record must be kept and available	1. The mine operator of a mine must keep a record that forms part of the mine record for 7 years from the date the record was made.				
		2. The mine operator must keep the mine record for the mine available for inspection under the Act.				
		3. The mine operator must ensure that the mine record for the mine is available to workers at the mine on request.				
		4. For the purposes of subregulation (3), the mine operator is only required to make available a summary of a record referred to in regulation 675Y(2)(c).				
		5. Subregulation (3) does not require or permit the mine operator to provide personal or medical information in relation to a worker without the worker's written consent unless the information is in a form that— (a) does not identify the worker; and (b) could not reasonably be expected to lead to the identification of the worker.				

WHS Regulations 2012	% Compliance
Chapter 10, Part 1	0.0%
Chapter 10, Part 2	0.0%
Chapter 10, Part 3	0.0%
Chapter 10, Part 4	0.0%
Chapter 10, Part 5	0.0%
Chapter 10, Part 6	0.0%
Chapter 10, Part 7	0.0%
Overall Compliance	0.0%

16	0
322	0
38	0
14	0
14	0
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Organisation / Location:

Last Updated:

ACTION PLAN								
Regulation	Action Recommended (WHAT)	Planned Action (HOW)	Risk Priority	Person Responsible (WHO)	Date action to be completed (WHEN)	Monitoring Review		
						Status of Action		Comments
Chapter 10, Mines						Select	% Completed	
615								
616								
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617 (3)								
618 (1)								
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Disclaimer

This assessment tool addresses the requirements of the *Work Health and Safety Regulations 2012* (SA), Chapter 10 Mines. Compliance with this tool does not guarantee full compliance with all Work Health and Safety legal requirements, nor that the Person Conducting a Business or Undertaking (PCBU) is immune from enforcement action by SafeWork SA.

The legislation mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

Any assessment report produced is intended for internal use only by the recipient, for the improvement of Work Health and Safety, and should not be used for any other purpose whatsoever or disseminated to any third party.

Work Health and Safety Regulations 2012 (SA) (Chapter 10, Mines) Safety Management System Gap Analysis Tool

Purpose

This audit tool has been developed to assist mines and quarries to assess their Work Health and Safety Management System to ensure they comply with the requirements of the *Work Health and Safety Regulations 2012 (SA)* (Chapter 10, Mines).

Answering and Scoring Questions

The questions are grouped together in the assessment section under the relevant regulations of the *Work Health and Safety Regulations 2012 (SA)* Chapter 10 (Mines).

Each question is required to be rated either;

ZERO (0) = No evidence of conformance or action taken;

ONE (1) = Evidence of some action taken i.e. partial conformance; or

TWO (2) = Fully conforms with requirement.

This Assessment Tool has been designed for businesses of all types and sizes to measure and verify their level of conformance with the *Work Health and Safety Regulations 2012 (SA)* Chapter 10 (Mines) requirements, by scoring each question in the assessment. Once you have entered the name of your organisation, location, person(s) carrying out the assessment and date, it is simply a matter of going through each question and entering a score of 0, 1 or 2, based on the level of conformance with the question being asked. A drop down box containing these options is indicated by an arrow located at the bottom right hand corner of each scoring tab. A score of 0 (red) indicates that there is no evidence of conformance or action taken; a score of 1 (orange) indicates that some action has been taken, or there is some evidence of conformance; and a score of 2 (green) indicates that this requirement has been fully complied with. If you answer the assessment question as a 1 or 2 you should be able to complete the "Verification / Evidence and Comments" sections to:

- Prove it (e.g. refer to documented evidence to support your response; policy, procedure, records, etc.)
- Demonstrate that there has been appropriate consultation in development and implementation
- Demonstrate that there has been appropriate training, if required
- Demonstrate that the action is being implemented
- Demonstrate that you understand the requirements of the question.

Improvement Plan

An entry in the "Recommended Actions" section of the Assessment will automatically transfer into the attached Improvement Plan. This is then required to be completed by the organisation in terms of:

- 1) What action is to be taken to meet the requirement;
- 2) Who will be responsible to ensure this action occurs;
- 3) How long will be required to complete it; and
- 4) What the measure for success will be.

Once all of these details have been entered and the headings completed (including entering the business name, location and date), the Improvement Plan is now ready for implementation. Spaces in the plan will need to be removed manually where no action is required. The document will now be ready to print with your updated details. This can be re-entered, modified and saved as many times as you like to create an ongoing record of the development and continuous improvement made on your Work Health and Safety Management System.

It is important to note that it is up to the organisation to ensure that the actions, responsibilities and timeframes given are practical, achievable and meet the recommendations of the assessment. As circumstances change it may be necessary to adjust and alter the plan on an ongoing basis. This will need to be done in consultation and agreement with the Officer who will be monitoring the progress being made.

Progressing through the program

The ultimate aim of your organisation should be to achieve 100% conformance with the requirements. It is recognised that, for smaller organisations in particular, this may not be achievable in the immediate future and that it may require some time to achieve this goal. The most important thing is that the organisation has a genuine commitment from top to bottom to build a Safety culture that is based on continuous improvement. The Improvement Plan should be a reflection of this ongoing evolution and improvement.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

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Any Improvement Plan produced with the assistance of MAQOHSC is compiled on the basis of information supplied. MAQOHSC cannot know whether the information supplied to it is complete and/or accurate.

MAQOHSC accepts no responsibility or liability for any acts done or omissions made pursuant to the Plan.

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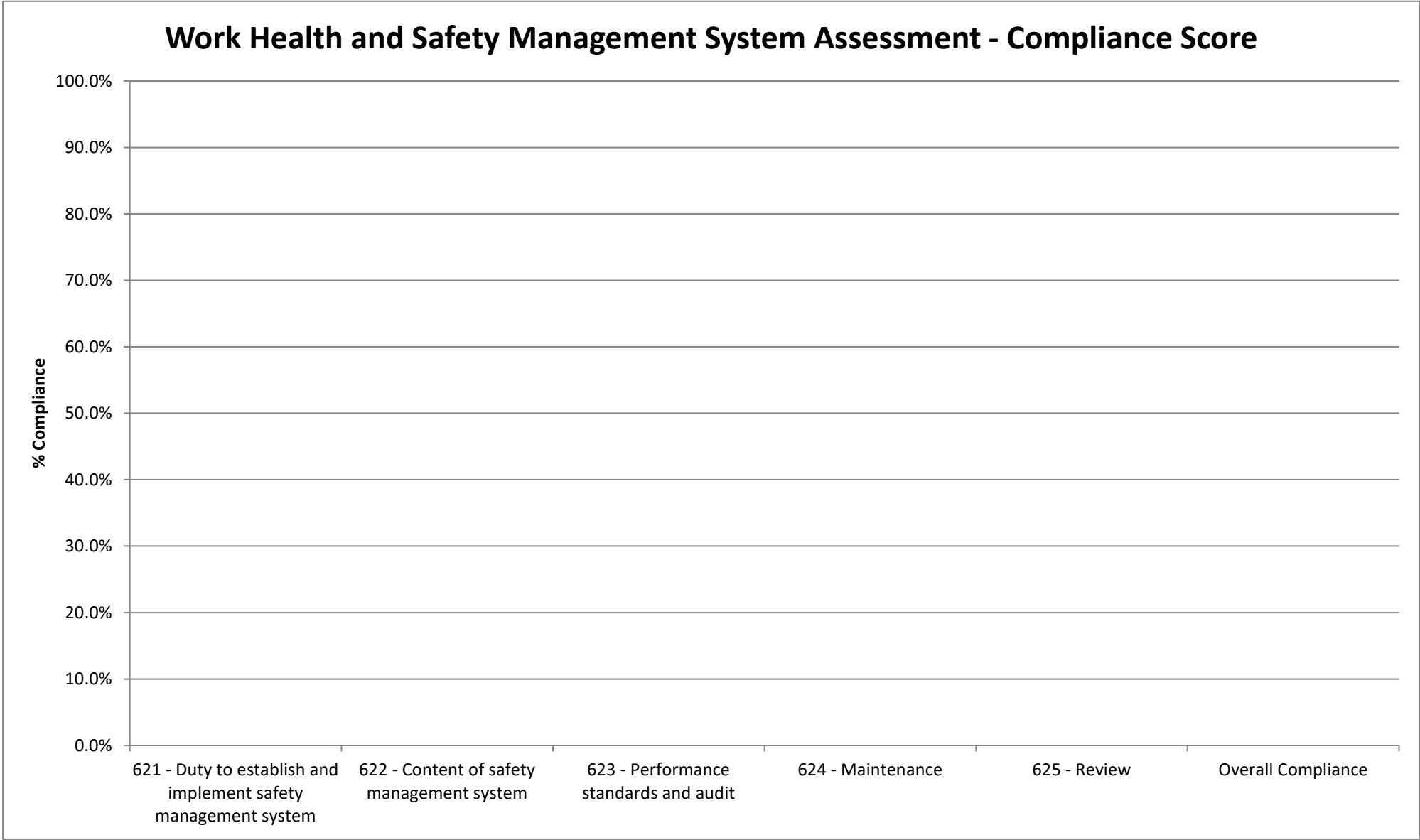
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February 2020

Compliance Summary

Regulation	% Compliance
621 - Duty to establish and implement safety management system	0.0%
622 - Content of safety management system	0.0%
623 - Performance standards and audit	0.0%
624 - Maintenance	0.0%
625 - Review	0.0%
Overall Compliance	0.0%



Work Health and Safety Regulations 2012 (SA) (Chapter 10, Mines) Safety Management System Gap Analysis Tool

Date:		Company Name:		Address:	
Assessment Conducted By:			Assisted By:		

Regulation	Requirement				
621 - Duty to establish and implement safety management system		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the mine operator established a safety management system for the mine/quarry?				
2	Has the mine operator (so far as is reasonably practicable) implemented the safety management system for the mine/quarry?				
3	Does the safety management system form part of any overall management system that is in place at the mine/quarry?				
4a	Is the safety management system designed (so far as is reasonably practicable) to be used by the mine operator as the primary means of ensuring the health and safety of workers at the mine/quarry?				
4b	Is the safety management system designed (so far as is reasonably practicable) to be used by the mine operator as the primary means of ensuring that the health and safety of other persons is not put at risk from the mine/quarry or work carried out as part of the mining operations at the mine/quarry?				
5	Does the safety management system provide a comprehensive and integrated system for the management of all aspects of risks to health and safety in relation to the operation of the mine/quarry?				
6a	In complying with regulation 621(5) of the <i>Work Health and Safety Regulations 2012 (SA)</i> , is the safety management system appropriate to the mine, having regard to the nature, complexity and location of the mining/quarrying operations?				
6b	In complying with regulation 621(5) of the <i>Work Health and Safety Regulations 2012 (SA)</i> , is the safety management system appropriate to the mine, having regard to the risks associated with the mining/quarrying operations?				
7	Is the safety management system documented?				
8b	If the mine/quarry is also determined to be a "Major Hazard Facility" under Chapter 9 of the <i>Work Health and Safety Regulations 2012 (SA)</i> , does the safety management system deal with all matters detailed under regulation 558 and include all matters listed in schedule 17?				
8c	Is the safety management system available to all persons who use it?				

622 - Content of safety management system			Verification / Evidence	Comments	Compliance Score	Recommended Action
1a	Does the safety management system document for the mine/quarry, set out the mine operators health and safety policy, including broad aims in relation to the safe operation of the mine/quarry?					
1b	Does the safety management system document for the mine/quarry, set out the arrangements for managing risks in accordance with regulation 617 of the <i>Work Health and Safety Regulations 2012 (SA)</i> ? Note: Regulation 617 - A person conducting a business or undertaking at a mine must manage risks to health and safety associated with mining operations at the mine, in accordance with Chapter 3 Part 1.					
1c	Does the safety management system document for the mine/quarry, set out the systems, procedures, plans and other control measures that will be used to control risks to health and safety associated with mining operations at the mine/quarry?					
1c(i)	Does the safety management system document for the mine/quarry, set out the principal mining hazard management plans prepared for the mine/quarry?					

1c(ii)	Does the safety management system document for the mine/quarry, set out the ventilation control plan and ventilation plan prepared for the mine? Note: <i>For underground mines only.</i>				
1d	Does the safety management system document for the mine/quarry, set out the management structure for the management of work health and safety at the mine/quarry?				
1d(i)	Does the safety management system document for the mine/quarry, set out the arrangements for filling temporary and permanent vacancies in relation to the management of work health and safety at the mine/quarry?				
1d(ii)	Does the safety management system document for the mine/quarry, set out the requirements relating to acting positions in the structure, in relation to the management of work health and safety at the mine/quarry?				
1d(iii)	Does the safety management system document for the mine/quarry, set out the competency requirements for positions in the structure, in relation to the management of work health and safety at the mine/quarry?				
1e	Does the safety management system document for the mine/quarry, set out the arrangements in place, between any PCBUs at the mine/quarry, for consultation, co-operation and co-ordination of activities in relation to their duties under the <i>Work Health and Safety Act 2012 (SA)</i> ?				
1f	Does the safety management system document for the mine/quarry, set out the control measures that will be used to control risks to health and safety associated with contractors work at the mine/quarry?				
1f(i)	Does the safety management system document for the mine/quarry, set out the how the contractors Work Health and Safety Management System will be integrated with the safety management system for the mine/quarry?				
1f(ii)	Does the safety management system document for the mine/quarry, set out the process for assessing health and safety policies and procedures (including competency requirements) of the contractor and integrating them into the safety management system for the mine/quarry?				
1f(iii)	Does the safety management system document for the mine/quarry, set out the arrangements for monitoring and evaluating compliance of the contractor with the health and safety requirements of the safety management system for the mine/quarry?				
1g(i)	Does the safety management system document for the mine/quarry, set out the emergency plan for the mine/quarry?				
1g(ii)	Does the safety management system document for the mine/quarry, set out the emergency procedures and all other matters in the emergency plan for the mine/quarry prepared under Chapter 10, Part2, Division 5 (Emergency Management) of the <i>Work Health and Safety Regulations 2012 (SA)</i> ?				
1h	Does the safety management system document for the mine/quarry, set out the procedures and conditions under which persons at the mine/quarry or part of the mine/quarry are to be withdrawn to a place of safety and to remain withdrawn as a precautionary measure, where risks to health and safety warrants that withdrawal?				
1i	Does the safety management system document for the mine/quarry, set out the arrangements for the provision of information, training and instruction required under regulation 39 of the <i>Work Health and Safety Regulations 2012 (SA)</i> ?				
1j	Does the safety management system document for the mine/quarry, set out the induction procedures for workers at the mine/quarry?				
1k	Does the safety management system document for the mine/quarry, set out the arrangements in place for the supervision needed to protect workers and other persons at the mine/quarry from risks to health and safety from work carried out at the mine/quarry?				
1l	Does the safety management system document for the mine/quarry, set out the arrangements in place for health monitoring under Chapter 10, Part 3 of the <i>Work Health and Safety Regulations 2012 (SA)</i> ?				
1m	Does the safety management system document for the mine/quarry, set out the safety role for workers in relation to principal mining hazards?				
1n	Does the safety management system document for the mine/quarry, set out the procedures for notifiable incident response and investigation at the mine/quarry?				
1o	Does the safety management system document for the mine/quarry, set out the procedures for records management for the mine/quarry to ensure compliance with the <i>Work Health and Safety Act 2012 (SA)</i> ?				

1p	Does the safety management system document for the mine/quarry, set out the arrangements in place for all other monitoring and assessment and regular inspection of the working environment of the mine/quarry?				
1q	Does the safety management system document for the mine/quarry, set out the performance management system required under regulation 623 of the <i>Work Health and Safety Regulations 2012 (SA)</i> ?				
1r	Does the safety management system document for the mine/quarry, set out the resources that will be applied for the effective implementation and use of the safety management system?				
2a(i)	Does the safety management system document for the mine/quarry, contain a level of detail of the matters set out in regulation 622(1) of the <i>Work Health and Safety Regulations 2012 (SA)</i> , that is appropriate to the nature, complexity and location of the mining/quarrying operations?				
2a(ii)	Does the safety management system document for the mine/quarry, contain a level of detail of the matters set out in regulation 622(1) of the <i>Work Health and Safety Regulations 2012 (SA)</i> , that is appropriate to the risks associated with those operations?				
2b	Is the safety Management system document (so far as is reasonably practicable) set out and expressed in a way that is readily understandable by all persons required to use it?				

623 - Performance standards and audit		Verification / Evidence	Comments	Compliance Score	Recommended Action
a(i)	Does the safety management system for the mine/quarry include performance standards for measuring the effectiveness of all aspects of the safety management system, that are sufficiently detailed to show how the mine operator will ensure the effectiveness of the safety management system?				
a(ii)	Does the safety management system for the mine/quarry include performance standards for measuring the effectiveness of all aspects of the safety management system, that include steps that are to be taken to continually improve the safety management system?				
b	Does the safety management system include the way in which the performance standards are to be met?				
c	Does the safety management system include a system for auditing the effectiveness of the safety management system for the mine/quarry against the performance standards, including the methods, frequency and results of the audit process?				

624 - Maintenance		Verification / Evidence	Comments	Compliance Score	Recommended Action
	Has the mine operator maintained the safety management system for the mine/quarry so that the safety management system remains effective?				

625 - Review		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the mine operator ensured that the safety management system for the mine/quarry is reviewed at least once every 3 years and as necessary revised the safety management system to ensure it remains effective.				
2	If a risk control measure has been revised under the requirements of regulation 38 or 618 of the <i>Work Health and Safety Regulations 2012 (SA)</i> , has the mine operator ensure that the safety management system for the mine/quarry has bee reviewed and as necessary revised in relation to all aspects of the risk control addressed?				
3	If the mine/quarry is determined a "Major Hazard Facility" under Chapter 9 of the <i>Work Health and Safety Regulations 2012 (SA)</i> , has the mine operator for the mine/quarry reviewed and as necessary revised the safety management system for the mine/quarry, if a circumstance referred to in regulation 559(2) of the <i>Work Health and Safety Regulations 2012 (SA)</i> , exists?				

Organisation

Last Updated:

ACTION PLAN								
Regulation	Action Recommended (WHAT)	Planned Action (HOW)	Risk Priority	Person Responsible	Date action to be completed	Monitoring Review		
						Status of Action		Comments
621 - Duty to establish and implement safety management system						Select	% Completed	
1								
2								
3								
4a								
4b								
5								
6a								
6b								
7								
8b								
8c								

622 - Content of safety management system						Select	% Completed	
1a								
1b								
1c								
1c(i)								
1c(ii)								
1d								
1d(i)								
1d(ii)								
1d(iii)								
1e								

1f								
1f(i)								
1f(ii)								
1f(iii)								
1g(i)								
1g(ii)								
1h								
1i								
1j								
1k								
1l								
1m								
1n								
1o								
1p								
1q								
1r								
2a(i)								
2a(ii)								
2b								

623 - Performance standards and audit						Select	% Completed	
a(i)								
a(ii)								
b								
c								

624 - Maintenance						Select	% Completed	
7.1								

625 - Review						Select	% Completed	
1								
2								
3								

Disclaimer

This assessment tool addresses the requirements of the *Work Health and Safety Regulations 2012* (SA) Chapter 10 (Mines) Regulations 621 - 625. Compliance with this tool does not guarantee full compliance with all legislative requirements, nor that the person conducting a business or undertaking (PCBU()) is immune from enforcement action by state regulators.

The requirements mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

Any assessment report produced is intended for internal use only by the recipient, for the improvement of the mine safety management system, and should not be used for any other purpose whatsoever or disseminated to any third party.

AS/NZS 4801:2001 Occupational Health and Safety Management System Audit Tool

Purpose

The AS/NZS 4801:2001 Occupational Health and Safety Management Systems Audit Tool is designed as a practical and proactive means for an organisation to:

1.) Complete an initial (benchmark) assessment of an organisations compliance with the Australian / New Zealand Standard AS/NZS 4801:2001 Occupational Health and Safety Management Systems. It is intended that Mining and Quarrying Occupational Health and Safety Committee Work Health and Safety Specialists (Lead Auditor) will conduct the initial audit with the assistance of the organisations personnel.

2.) Measure and monitor AS/NZS 4801:2001 Occupational Health and Safety Management Systems compliance on a regular basis. The AS/NZS 4801:2001 Occupational Health and Safety Management Systems Audit Tool is dated and keeps a running score, hence it is easy to monitor and measure improvements that take place over a period of time by re-using the tool periodically as required.

3.) Develop and implement an associated Improvement Plan, which is automatically generated when recommendations are entered in the Audit Tool sheet. This can then be used as a tool for planning, prioritising, resourcing and implementing continuous improvements of the organisations Occupational Health and Safety Management System.

Answering and scoring questions

The questions are grouped together in the assessment section under the relevant clauses of the Australian / New Zealand Standard AS/NZS 4801:2001 Occupational Health and Safety Management Systems.

Each question is required to be rated either:

ZERO (0) = No evidence of conformance or action taken;

ONE (1) = Evidence of some action taken, i.e. partial conformance; or

TWO (2) = Fully conforms with requirement.

This Audit Tool has been designed for businesses of all types and sizes to measure and verify their level of conformance with the Australian / New Zealand Standard AS/NZS 4801:2001 Occupational Health and Safety Management Systems, by scoring each question in the assessment.

Once you have entered the name of your organisation, location, person(s) carrying out the audit and date, it is simply a matter of going through each question and entering a score of 0, 1 or 2, based on the level of conformance with the question being asked. A drop down box containing these options is indicated by an arrow located at the bottom right hand corner of each scoring tab.

A score of 0 (red) indicates that there is no evidence of conformance or action taken; a score of 1 (orange) indicates that some action has been taken, or there is some evidence of conformance; and a score of 2 (green) indicates that this requirement has been fully complied with. If you answer the assessment question as a 1 or 2 you should be able to complete the "Verification / Evidence and Comments" sections to:

- Prove it (e.g. refer to documented evidence to support your response; policy, procedure, records etc.)
- Demonstrate that there has been appropriate consultation in development and implementation
- Demonstrate that there has been appropriate training, if required
- Demonstrate that the action is being implemented
- Demonstrate that you understand the requirements of the question

Improvement Plan

An entry in the "Recommended Actions " section of the Assessment will automatically transfer into the attached Improvement Plan. This is then required to be completed by the organisation in terms of:

- 1) What action is to be taken to meet the requirement;
- 2) Who will be responsible to ensure this action occurs;
- 3) How long will be required to complete it, and;
- 4) What the measure for success will be.

Once all of these details have been entered and the headings completed (including entering the business name, location and date), the Improvement Plan is now ready for implementation. Spaces in the Plan will need to be removed manually where no action is required. The document will now be ready to print with your updated details. This can be re-entered, modified and saved as many times as you like to create an ongoing record of the development and continuous improvement made on your Occupational Health and Safety Management System.

It is important to note that it is up to the organisation to ensure that the actions, responsibilities and timeframes given are practical, achievable and meet the recommendations of the audit. As circumstances change it may be necessary to adjust and alter the plan on an ongoing basis. This will need to be done in consultation and agreement with the Officer who will be monitoring the progress being made.

Progressing through the program

The ultimate aim of your organisation should be to achieve 100% conformance with the requirements. It is recognised that, for smaller organisations in particular, this may not be achievable in the immediate future and that it may require some time to achieve this goal.

The most important thing is that the organisation has a genuine commitment from top to bottom to build a safety culture that is based on continuous improvement, and that all risks to health and safety are identified and eliminated, or at least controlled as far as is reasonably practicable. The Improvement Plan should be a reflection of this ongoing evolution and improvement.

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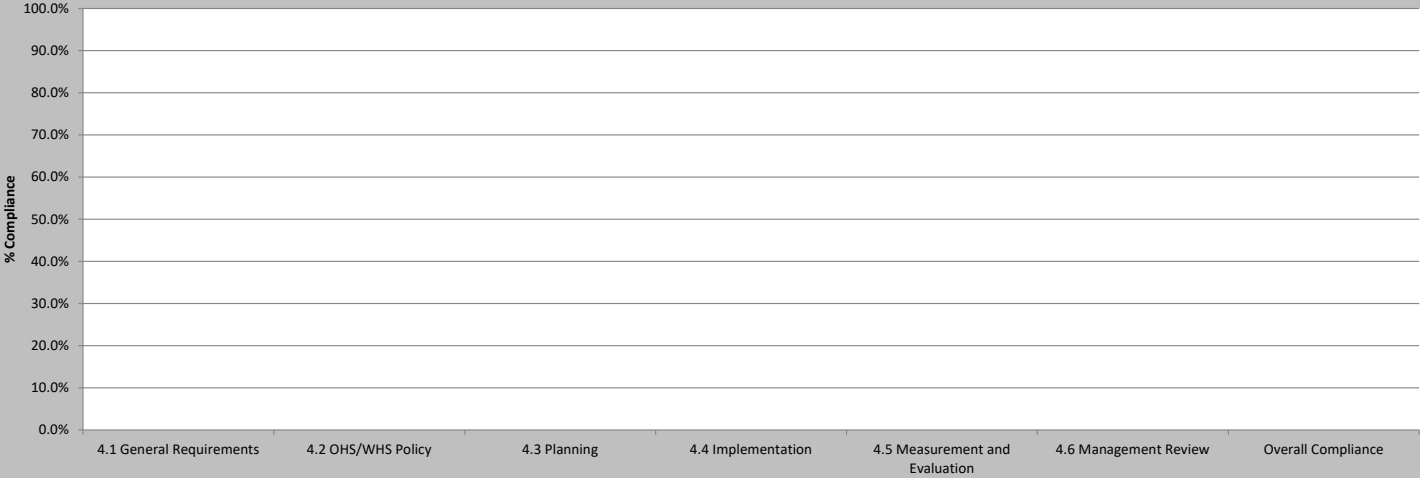
[Website: www.maqohsc.sa.gov.au](http://www.maqohsc.sa.gov.au)

February 2020

Requirements	% Compliance
4.1 General Requirements	0.0%
4.2 OHS/WHS Policy	0.0%
4.3 Planning	0.0%
4.4 Implementation	0.0%
4.5 Measurement and Evaluation	0.0%
4.6 Management Review	0.0%
Overall Compliance	0.0%

Sub-Clauses	
4.1 General Requirements	0.0%
4.2 OHS/WHS Policy	0.0%
4.3.1: Planning Identification of Hazards, Assessment and Control of Risks	0.0%
4.3.2 Legal and other requirements	0.0%
4.3.3 Objectives and Targets	0.0%
4.3.4 OHS/WHS Management Plans	0.0%
4.4.1.1 Resources	0.0%
4.4.1.2 Responsibility and Accountability	0.0%
4.4.2 Training and Competence	0.0%
4.4.3.1 Consultation	0.0%
4.4.3.2 Communication	0.0%
4.4.3.3 Reporting	0.0%
4.4.4 Documentation	0.0%
4.4.5 Document and Data Control	0.0%
4.4.6.1 General	0.0%
4.4.6.2 Hazard Identification	0.0%
4.4.6.3 Risk Assessment	0.0%
4.4.6.4 Control of Risks	0.0%
4.4.6.5 Evaluation	0.0%
4.4.7 Emergency Preparedness and Response	0.0%
4.5.1.1 General	0.0%
4.5.1.2 Health Surveillance	0.0%
4.5.2 Incident Investigation, Corrective Action and Preventative Action	0.0%
4.5.3 Records and Records Management	0.0%
4.5.4 OHS/WHS Management System Audit	0.0%
4.6 Management Review	0.0%

AS/NZS 4801:2001 Audit Compliance



AS/NZS 4801:2001 Audit Compliance - Sub-Clauses



AS/NZS 4801:2001 Occupational Health and Safety Management System Audit Tool

Date:		Company Name:		Address:	
Lead Auditor:			Audit Assistants:		

Clause	Requirement	Verification / Evidence	Comments	Compliance Score	Recommended Action
4.1 General Requirements					
1	Does the organisation have an established and documented OHS/WHS Management System?				
2	Has the organisation defined and documented the scope of its OHS/WHS Management System?				

4.2 OHS/WHS Policy		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation defined and documented its OHS/WHS policy?				
2	Is the policy authorised (signed) by the senior most person within the organisation?				
3	Does the policy clearly state the overall OHS/WHS objectives?				
4	Does the policy clearly demonstrate a commitment to improving OHS/WHS performance?				
5	Is the policy appropriate to the nature and scale of the organisations risks?				
6	Does the policy include a commitment to establish measurable objectives and targets to ensure continued improvement aimed at the elimination of work related injury and illness?				
7	Does the policy include a commitment to comply with all relevant OHS/WHS legislation and other requirements placed upon the organisation or to which the organisation subscribes to?				
8	Is the policy documented, implemented, maintained and communicated to all employees?				
9	Is the policy available to all interested parties?				
10	Is the policy reviewed periodically to ensure it remains relevant and appropriate to the organisation?				

4.3 Planning					
4.3.1: Planning Identification of Hazards, Assessment and Control of Risks		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation established, implemented and maintained documented procedures for hazard identification, hazard and risk assessment and control of hazards and risks of activities, products and services over which an organisation has control or influence, including activities, products or services of contractors and suppliers?				

2	Has the organisation developed its methodology for hazard identification, risk assessment and control of risks, based on its operational experience and its commitment to eliminate workplace illness and injury?				
3	Has the organisation kept the methodology up-to-date?				

4.3.2 Legal and other requirements		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation established, implemented and maintained procedures to identify and have access to all legal and other requirements that are directly applicable to the OHS/WHs issues related to its activities, products or services, including relevant relationships with contractors or suppliers?				
2	Has the organisation communicated relevant legal and other requirements to its employees?				

4.3.3 Objectives and Targets		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation established, implemented and maintained OHS/WHs objectives and targets, at each relevant function and level within the organisation				
2	Are objectives and targets documented?				
3.1	When establishing and reviewing the objectives and targets, has the organisation considered its legal and other requirements?				
3.2	When establishing and reviewing the objectives and targets, has the organisation considered its hazards and risks?				
3.3	When establishing and reviewing the objectives and targets, has the organisation considered its technological options?				
3.4	When establishing and reviewing the objectives and targets, has the organisation considered its operational and business requirements				
3.5	When establishing and reviewing the objectives and targets, has the organisation considered the views of interested parties?				
4	Are the objectives and targets consistent with the OHS/WHs policy, including the commitment to measuring and improving OHS/WHs performance?				

4.3.4 OHS/WHs Management Plans		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation established and maintained management plans for achieving its objectives and targets?				
1.2	Do the management plans include the designation of responsibility for the achievement of objectives and targets at relevant functions and levels of the organisation?				
1.3	Do the management plans outline the means and timeframes by which objectives and targets are to be achieved?				
2.1	Has the organisation established and implemented procedures to ensure that current plans are reviewed and as necessary amended at regular planned intervals?				
2.2	Do the procedures include the requirement to review and as necessary amended plans whenever there are changes to the activities, products or services of the organisation or significant changes in the operating conditions?				

4.4 Implementation					
--------------------	--	--	--	--	--

4.4.1 Structure and Responsibility					
4.4.1.1 Resources		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have management identified and provided resources to implement, maintain and improve the OHS/WHs Management System? Note: Resources include human resources and specialised skills, technology and financial resources.				

4.4.1.2 Responsibility and Accountability		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation defined the areas of accountability and responsibility (including those imposed by OHS WHS legislation) of all personnel involved in the OHS/WHs Management System's operation?				
1.2	Are the accountabilities and responsibilities documented?				
1.3	Have the responsibilities and accountabilities been communicated to all relevant personnel?				
2	Where contractors are involved, have these areas of accountability and responsibility been clarified with respect to those contractors?				
3.1	Has the organisations senior management appointed a specific management representative(s) who, irrespective of other responsibilities, has defined roles, responsibilities and authority for ensuring the OHS/WHs management system requirements are established, implemented and maintained?				
3.2	Has the organisations senior management appointed a specific management representative(s) who, irrespective of other responsibilities, has defined roles, responsibilities and authority for reporting on the performance of the OHS/WHs management system to senior management for review and as a basis for improvement of the OHS/WHs management system?				

4.4.2 Training and Competence		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation, in consultation with employees, identified the training needs in relation to performing work activities competently, including OHS/WHs training?				
2.1	Are procedures in place to ensure that OHS/WHs competencies are developed and maintained?				
2.2	Have personnel been assessed as competent, on the basis of skills achieved through education, training or experience, to perform assigned tasks taking into account the OHS/WHs obligations, hazards and risks associated with the work activities?				
3.1	Do the procedures developed for providing OHS/WHs training take into account the characteristics and composition of the workforce which impact on OHS/WHs management?				
3.2	Do the procedures developed for providing OHS/WHs training take into account the responsibilities, hazards and risks?				
4	Has the organisation ensured that all personnel (including contractors and visitors) have undertaken training appropriate to the identified needs				
5	Has the training provided been carried out by persons with appropriate skills, knowledge and experience in OHS/WHs and training?				

4.4.3 Consultation, Communication and Reporting					
4.4.3.1 Consultation		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Are there documented procedures, agreed to by the employees, for employee involvement and consultation in OHS/WHs issues?				

1.2	Are the procedures made available to interested parties?				
2.1	Have employees been involved in the development, implementation and review of policies and procedures for hazard identification, risk assessment and control of hazards and risks?				
2.2	Have employees been consulted where there are any changes that affect workplace OHS/WHs?				
2.3	Have employees selected those who represent them on OHS/WHs matters?				
2.4	Have employees been informed as to who is/are their employee OHS/WHs representative(s) and specified management representative(s)?				
3	Have those persons representing the employees and employer received appropriate training to effectively undertake their involvement in the development, implementation and review of OHS/WHs arrangements?				

4.4.3.2 Communication		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Are procedures established for ensuring that pertinent OHS/WHs information is communicated to and from employees and other interested parties?				

4.4.3.3 Reporting		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have procedures for relevant and timely reporting of information been established to ensure the OHS/WHs management system is monitored and performance improved?				
2.1	Do the reporting procedures cover OHS/WHs performance reporting (including results of OHS/WHs audits and reviews)?				
2.2	Do the reporting procedures cover reporting of incidents and system failures?				
2.3	Do the reporting procedures cover reporting on hazard identifications?				
2.4	Do the reporting procedures cover reporting on risk assessments?				
2.5	Do the reporting procedures cover reporting on preventative and corrective actions?				
2.6	Do the reporting procedures cover statutory reporting requirements?				

4.4.4 Documentation		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation established, implemented and maintained information, in a suitable medium (such as in print or electronic form) to describe the core elements of the OHS/WHs management system and their interaction?				
1.2	Has the organisation established, implemented and maintained information, in a suitable medium (such as in print or electronic form) to provide direction to related documentation?				

4.4.5 Document and Data Control		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation established, implemented and maintained procedures for controlling documents and data to ensure they can be readily located?				

1.2	Has the organisation established, implemented and maintained procedures for controlling documents and data to ensure they are periodically reviewed, revised as necessary and approved for adequacy by a competent and responsible person?				
1.3	Has the organisation established, implemented and maintained procedures for controlling documents and data to ensure that current versions of relevant documents and data are available at all locations where operations essential to the effective functioning of the OHS/WHS management system are performed?				
1.4	Has the organisation established, implemented and maintained procedures for controlling documents and data to ensure obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against unintended use?				
1.5	Has the organisation established, implemented and maintained procedures for controlling documents and data to ensure archival documents and data retained for legal or knowledge preservation purposes or both, are suitably identified?				
2	Is all documentation and data legible, dated (with dates of revision), readily identifiable and maintained in an orderly manner for a specified period?				
3	Are procedures and responsibilities established and maintained concerning the creation and modification of the various types of documents and data?				
4	Has the organisation precluded the use of obsolete documents?				

4.4.6 Hazard Identification, Risk Assessment and Control of Hazards and Risks

4.4.6.1 General		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation established, implemented and maintained documented procedures to ensure hazard identification is conducted?				
1.2	Has the organisation established, implemented and maintained documented procedures to ensure risks are assessed?				
1.3	Has the organisation established, implemented and maintained documented procedures to ensure control measures are identified and implemented?				
1.4	Has the organisation established, implemented and maintained documented procedures to ensure all of the above are evaluated?				

4.4.6.2 Hazard Identification		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Does the identification of hazards in the workplace take into account the situation or events or combination of circumstances that has the potential to give rise to injury or illness?				
1.2	Does the identification of hazards in the workplace take into account the nature of potential injury or illness relevant to the activity, product or service?				
1.3	Does the identification of hazards in the workplace take into account past injuries, incidents and illnesses?				
2.1	Does the identification process also include consideration of the way work is organised, managed, carried out and any changes that occur?				
2.2	Does the identification process also include consideration of the design of workplaces, work processes, materials, plant and equipment?				
2.3	Does the identification process also include consideration of the fabrication, installation and commissioning and handling and disposal of material, workplaces, plant and equipment?				
2.4	Does the identification process also include consideration of the purchasing of goods and services?				

2.5	Does the identification process also include consideration of the contracting and sub-contracting of plant, equipment, services and labour including contract specification and responsibilities to and by contractors?				
2.6	Does the identification process also include consideration of the inspection, maintenance, testing repair and replacement of plant and equipment?				

4.4.6.3 Risk Assessment		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Have all risks been assessed?				
1.2	Have control priorities been assigned based on the established level of risk?				

4.4.6.4 Control of Risks		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Have all risks, identified through the assessment process as requiring control, been controlled through a preferred order of control (hierarchy of control)? Note: <i>Hierarchy of Control - Elimination, Substitution, Engineering, Isolation, Administration and PPE.</i>				
1.2	Has elimination been the first control method considered?				

4.4.6.5 Evaluation		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has a documented evaluation of the effectiveness of hazard identification, risk assessments and controls been conducted and modifications made as necessary?				

4.4.7 Emergency Preparedness and Response		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Have all potential emergency situations been identified?				
1.2	Have documented emergency procedures been established and implemented for preventing and mitigating the associated illness and injury?				
2	Has the organisation reviewed, revised and as necessary modified, its emergency preparedness and emergency procedures, particularly after the occurrence of incidents or emergency situations?				
3	Does the organisation periodically test the emergency procedures?				

4.5 Measurement and Evaluation					
4.5.1 Monitoring and Measurement					
4.5.1.1 General		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation established, implemented and maintained documented procedures to monitor and measure on a regular basis the key characteristics of its operations and activities that may cause injury or illness?				
1.2	Has the effectiveness of these measures been evaluated?				
2.1	Has appropriate equipment for monitoring measurement of related health and safety risks been identified?				
2.2	Has the monitoring and measurement equipment been calibrated, maintained and stored as required?				

2.3	Have records of monitoring, measurement, calibration and maintenance been retained?				
3.1	Has the organisation established, implemented and maintained documented procedures to monitor the performance, effectiveness of the operational controls and conformance with the organisations objectives and targets?				
3.2	Has the organisation established, implemented and maintained documented procedures to monitor compliance with relevant OHS/WHs legislation?				

4.5.1.2 Health Surveillance		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation identified those situations where employee health surveillance is required?				
1.2	Has the organisation implemented appropriate systems to ensure situations where health surveillance is required are identified and health surveillance is conducted?				
1.3	Do employees have access to their own individual results?				
2	Has the health of employees exposed to specific hazards (as specified by legislation) been monitored and recorded?				

4.5.2 Incident Investigation, Corrective Action and Preventative Action		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Has the organisation established, implemented and maintained procedures for investigating, responding to and taking action to minimise any harm caused from incidents?				
1.2	Has the organisation established, implemented and maintained procedures for investigating and responding to system failures?				
1.3	Has the organisation established, implemented and maintained procedures for initiating and completing appropriate corrective and preventative actions?				
2	Has the organisation implemented and recorded any changes to the OHS/WHs management systems procedures resulting from incident investigations and corrective and preventative actions?				

4.5.3 Records and Records Management		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation established, implemented and maintained procedures for the identification, maintenance and disposal of OHS/WHs records (including the results of audits and reviews)?				
2.1	Are OHS/WHs records legible, identifiable and traceable to the activity, product or service involved?				
2.2	Are OHS/WHs records stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss?				
2.3	Are retention times established and recorded?				
3	Are records maintained, as appropriate to the system and to the organisation, to demonstrate conformance to the requirements of AS/NZS 4801:2001?				

4.5.4 OHS/WHs Management System Audit		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation established, implemented and maintained an audit program and procedures for periodic OHS/WHs management system audits to be carried out by a competent persons?				

2.1	Does the audit program and procedures enable the organisation to determine whether the OHS/WHS management system conforms to the planned arrangements for OHS/WHS management, including the requirements of AS/NZS 4801:2001?				
2.2	Does the audit program and procedures enable the organisation to determine whether the OHS/WHS management system has been properly implemented and maintained?				
2.3	Does the audit program and procedures enable the organisation to determine whether the OHS/WHS management system is effective in meeting the organisations policy?				
2.4	Does the audit program and procedures enable the organisation to determine whether the OHS/WHS management system is effective in meeting the organisations objectives and targets for continual OHS/WHS improvement?				
2.5	Does the audit program and procedures enable the provision of information on the results of audits to management and employees?				
3.1	Is the audit program, including any schedule, based on the OHS/WHS importance of the activity concerned, and the results of previous audits?				
3.2	Do the audit procedures cover the scope, frequency, methodologies and competencies, as well as the responsibilities and requirements for conducting audits and reporting results?				

4.6 Management Review		Verification / Evidence	Comments	Compliance Score	Recommended Action
1.1	Does the organisations top management, at determined intervals, review the OHS/WHS management system, to ensure its continuing suitability, adequacy and effectiveness?				
1.2	Does the management review process ensure that necessary information is collected to allow management to carry out the evaluation?				
1.3	Is the management review documented?				
2	Does the organisations management review the continued relevance of, and change where appropriate, policy, objectives, responsibilities and other elements of the OHS/WHS management system, in light of OHS/WHS management system audit results, changing circumstances and the commitment to continual improvement?				

Organisation

Last Updated:

ACTION PLAN								
Clause	Action Recommended (WHAT)	Planned Action (HOW)	Risk Priority	Person Responsible	Date action to be completed	Monitoring Review		
						Status of Action		Comments
4.1 General Requirements						Select	% Completed	
1								
2								
4.2 OHS/WHS Policy						Select	% Completed	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
4.3.1: Planning Identification of Hazards, Assessment and Control of Risks						Select	% Completed	
1								
2								
3								

4.3.2 Legal and other requirements						Select	% Completed	
1								
2								

4.3.3 Objectives and Targets						Select	% Completed	
1								
2								
3.1								
3.2								
3.3								
3.4								
3.5								
4								

4.3.4 OHS/WHS Management Plans						Select	% Completed	
1.1								
1.2								
1.3								
2.1								
2.2								

4.4.1.1 Resources						Select	% Completed	
6								

4.4.1.2 Responsibility and Accountability						Select	% Completed	
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1.1								
1.2								
1.3								
2								
3.1								
3.2								

4.4.2 Training and Competence						Select	% Completed	
1								
2.1								
2.2								
3.1								
3.2								
4								
5								

4.4.3.1 Consultation						Select	% Completed	
1.1								
1.2								
2.1								
2.2								
2.3								
2.4								
3								

4.4.3.2 Communication						Select	% Completed	
1								

4.4.3.3 Reporting						Select	% Completed	
1								
2.1								
2.2								
2.3								
2.4								
2.5								
2.6								

4.4.4 Documentation						Select	% Completed	
1.1								
1.2								

4.4.5 Document and Data Control						Select	% Completed	
1.1								
1.2								
1.3								
1.4								
1.5								
2								
3								

4								
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4.4.6.1 General						Select	% Completed	
1.1								
1.2								
1.3								
1.4								

4.4.6.2 Hazard Identification						Select	% Completed	
1.1								
1.2								
1.3								
2.1								
2.2								
2.3								
2.4								
2.5								
2.6								

4.4.6.3 Risk Assessment						Select	% Completed	
1.1								
1.2								

4.4.6.4 Control of Risks						Select	% Completed	
1.1								

1.2								
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4.4.6.5 Evaluation						Select	% Completed	
3								

4.4.7 Emergency Preparedness and Response						Select	% Completed	
1.1								
1.2								
2								
3								

4.5.1.1 General						Select	% Completed	
1.1								
1.2								
2.1								
2.2								
2.3								
3.1								
3.2								

4.5.1.2 Health Surveillance						Select	% Completed	
1.1								
1.2								
1.3								
2								

4.5.2 Incident Investigation, Corrective Action and Preventative Action						Select	% Completed	
1.1								
1.2								
1.3								
2								

4.5.3 Records and Records Management						Select	% Completed	
1								
2.1								
2.2								
2.3								
3								

4.5.4 OHS/WHS Management System Audit						Select	% Completed	
1								
2.1								
2.2								
2.3								
2.4								
2.5								
3.1								
3.2								

4.6 Management Review						Select	% Completed	
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1.1								
1.2								
1.3								
2								

Disclaimer

This audit tool addresses the elements of the AS 4801:2001 Occupational Health and Safety Management Systems. Compliance with this tool does not guarantee full compliance with all Environmental legislative requirements, nor that the PCBU is immune from enforcement action by state regulators.

The requirements mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

Any assessment report produced is intended for internal use only by the recipient, for the improvement of the Occupational Health and Safety Management System, and should not be used for any other purpose whatsoever or disseminated to any third party.

AS/NZS ISO 14001:2004 Environmental Management System Audit Tool

Purpose

The AS/NZS ISO 14001:2004 Environmental Management System Audit Tool is designed as a practical and proactive means for an organisation to:

- 1.) Complete an initial (benchmark) assessment of an organisations compliance with the Australian / New Zealand Standard AS/NZS ISO 14001:2004 Environmental Management Systems. It is intended that Mining and Quarrying Occupational Health and Safety Committee Work Health and Safety Specialists (Lead Auditor) will conduct the initial audit with the assistance of the organisations personnel.
- 2.) Measure and monitor AS/NZS ISO 14001:2004 Environmental Management Systems compliance on a regular basis. The AS/NZS ISO 14001:2004 Environmental Management Systems Audit Tool is dated and keeps a running score, hence it is easy to monitor and measure improvements that take place over a period of time by re-using the tool periodically as required.
- 3.) Develop and implement an associated Improvement Action Plan, which is automatically generated when recommendations are entered in the Audit Tool sheet. This can then be used as a tool for planning, prioritising, resourcing and implementing continuous improvements of the organisations Environmental Management System.

Answering and Scoring Questions

The questions are grouped together in the assessment section under the relevant clauses of the Australian / New Zealand Standard AS/NZS ISO 14001:2004 Environmental Management Systems.

Each question is required to be rated either;

ZERO (0) = No evidence of conformance or action taken,

ONE (1) = Evidence of some action taken, i.e. partial conformance or,

TWO (2) = Fully conforms with requirement.

This Audit Tool has been designed for businesses of all types and sizes to measure and verify their level of conformance with the Australian / New Zealand Standard AS/NZS ISO 14001:2004 Environmental Management Systems, by scoring each question in the assessment. Once you have entered the name of your organisation, location, person(s) carrying out the audit and date, it is simply a matter of going through each question and entering a score of 0, 1 or 2, based on the level of conformance with the question being asked. A drop down box containing these options is indicated by an arrow located at the bottom right hand corner of each scoring tab. A score of 0 (red) indicates that there is no evidence of conformance or action taken; a score of 1 (orange) indicates that some action has been taken, or there is some evidence of conformance; and a score of 2 (green) indicates that this requirement has been fully complied with. If you answer the assessment question as a 1 or 2 you should be able to complete the "Verification / Evidence and Comments" sections to:

- Prove it (e.g. refer to documented evidence to support your response; policy, procedure, records etc.)

- . Demonstrate that there has been appropriate consultation in development and implementation
- Demonstrate that there has been appropriate training, if required
- Demonstrate that the action is being implemented
- Demonstrate that you understand the requirements of the question.

Improvement Plan

An entry in the "Recommended Actions " section of the Assessment will automatically transfer into the attached Action Plan. This is then required to be completed by the organisation in terms of:

- 1) What action is to be taken to meet the requirement;
- 2) Who will be responsible to ensure this action occurs;
- 3) How long will be required to complete it; and
- 4) What the measure for success will be.

Once all of these details have been entered and the headings completed (including entering the business name, location and date), the Action Plan is now ready for implementation. Spaces in the Plan will need to be removed manually where no action is required. The document will now be ready to print with your updated details. This can be re-entered, modified and saved as many times as you like to create an ongoing record of the development and continuous improvement made on your Environmental Management System.

It is important to note that it is up to the organisation to ensure that the actions, responsibilities and timeframes given are practical, achievable and meet the recommendations of the audit. As circumstances change it may be necessary to adjust and alter the plan on an ongoing basis. This will need to be done in consultation and agreement with the Officer who will be monitoring the progress being made.

Progressing through the program

The ultimate aim of your organisation should be to achieve 100% conformance with the requirements. It is recognised that, for smaller organisations in particular, this may not be achievable in the immediate future and that it may require some time to achieve this goal. The most important thing is that the organisation has a genuine commitment from top to bottom to build an Environmental culture that is based on continuous improvement, and that all environmental aspects and risks are identified and eliminated, or at least controlled as far as is reasonably practicable. The Action Plan should be a reflection of this ongoing evolution and improvement.

The South Australian Mining and Quarrying Occupational Health and Safety Committee

Promoting Work Health and Safety in the Workplace

This workplace industry safety resource is developed and fully funded by the Mining and Quarrying Occupational Health and Safety Committee (MAQOHSC).

Disclaimer

Compliance with this audit tool does not guarantee full compliance with all Australian / New Zealand Standard AS/NZS ISO 14001:2004 Environmental Management Systems requirements, nor that the person conducting the business or undertaking (PCBU) is immune from enforcement action by the state regulator.

Any assessment report produced is intended for internal use only by the recipient, for the improvement of the Environmental Management System and should not be used for any other purpose whatsoever and should not be disseminated to any third party.

Any Environmental Management System Improvement Plan produced with the assistance of MAQOHSC is compiled on the basis of information supplied. MAQOHSC cannot know whether the information supplied to it is complete and/or accurate.

MAQOHSC accepts no responsibility or liability for any acts done or omissions made pursuant to the Plan.

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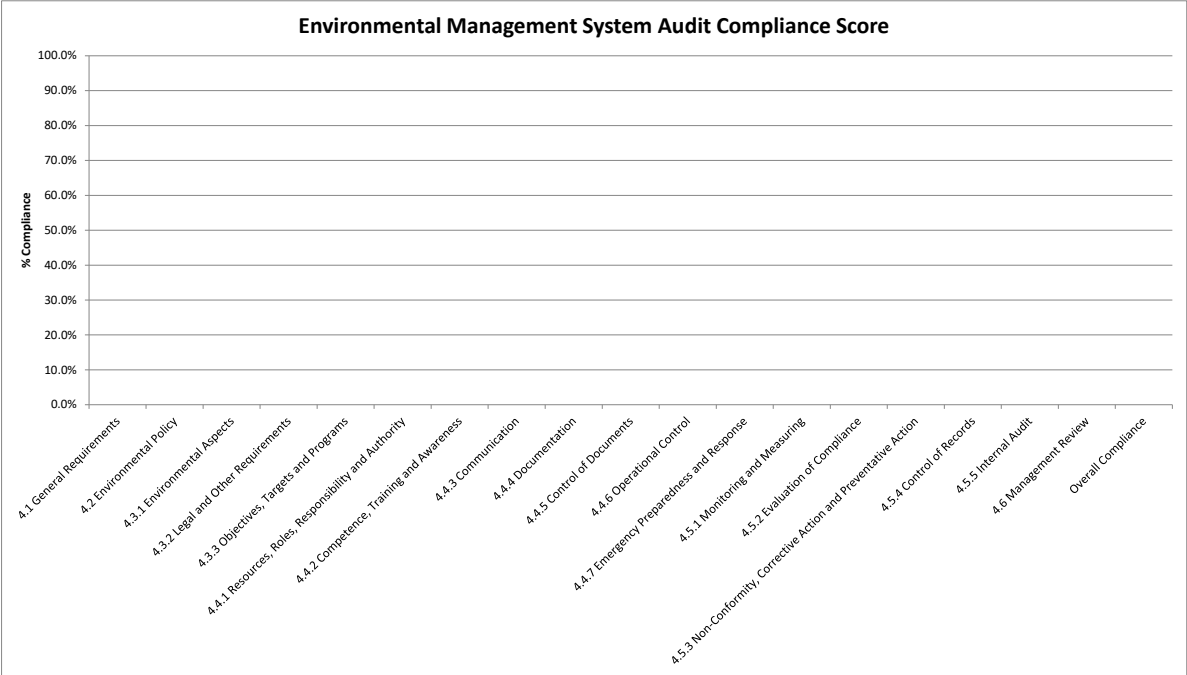
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[Website: www.maqohsc.sa.gov.au](http://www.maqohsc.sa.gov.au)

February 2020

Clause	% Compliance
4.1 General Requirements	0.0%
4.2 Environmental Policy	0.0%
4.3.1 Environmental Aspects	0.0%
4.3.2 Legal and Other Requirements	0.0%
4.3.3 Objectives, Targets and Programs	0.0%
4.4.1 Resources, Roles, Responsibility and Authority	0.0%
4.4.2 Competence, Training and Awareness	0.0%
4.4.3 Communication	0.0%
4.4.4 Documentation	0.0%
4.4.5 Control of Documents	0.0%
4.4.6 Operational Control	0.0%
4.4.7 Emergency Preparedness and Response	0.0%
4.5.1 Monitoring and Measuring	0.0%
4.5.2 Evaluation of Compliance	0.0%
4.5.3 Non-Conformity, Corrective Action and Preventative Action	0.0%
4.5.4 Control of Records	0.0%
4.5.5 Internal Audit	0.0%
4.6 Management Review	0.0%
Overall Compliance	0.0%



AS/NZS ISO 14001:2004 Environmental Management System Audit Tool

Date:		Company Name:	Address:
Lead Auditor:		Audit Assistants:	

Clause	Requirement	Verification / Evidence	Comments	Compliance Score	Recommended Action
4.1 General Requirements					
1	Does the organisation have an established and documented Environmental Management System?				
2	Has the organisation defined and documented the scope of its Environmental Management System?				

4.2 Environmental Policy					
Clause	Requirement	Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has the organisation defined and documented its environmental policy?				
2	Is the environmental policy based on:				
2.1	Significant environmental aspects?				
2.2	Corporate policy?				
3	Is the policy appropriate to the organisation's activities and their potential environmental impacts?				
4	Does the policy include commitments to:				
4.1	Continual improvement				
4.2	Prevention of pollution				
4.3	Comply with environmental legislation and other requirements to which the company subscribes				
5	Does the policy provide a framework for setting environmental objectives and targets?				
6	Is the policy documented, implemented, maintained and communicated to all persons working for or on behalf of the organisation?				
7	Is the policy available to the public?				

4.3 Planning

4.3.1 Environmental Aspects		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has a procedure been established, implemented and maintained to identify the environmental aspects of its current and relevant past activities?				
2	Have aspects related to potential significant environmental aspects been considered in establishing and implementing the Environmental Management System?				
3	Have aspects having legal and/or regulatory reporting, monitoring or operational requirements been identified as "significant" aspects?				
4	Are the following environmental aspects considered in sufficient detail?				
4.1	Air emissions				
4.2	Wastewater effluent				
4.3	Waste management				
4.4	Soil pollution				
4.5	Raw material and natural resource usage				
4.6	Hazardous and toxic material				
4.7	Impact on well being (e.g. noise, smell, heat, landscape, protection)				
4.8	Utility, energy and resource				
4.9	Other environmental specific issues on site such as housekeeping, storage, areas, piping				
5	Are the following operational aspects considered?				
5.1	Normal operating conditions				
5.2	Abnormal operating conditions (e.g. start up and shut down conditions, maintenance, incidents)				
5.3	Development of new or modified processes, products or services				
5.4	Actual and potential emergency conditions and accidents				
6	Have significant aspects been identified?				
7	Are the significance evaluation criteria reasonable and adequate?				
8	Are all significant environmental aspects controlled by objectives, targets, and programs, procedures or monitoring?				
9	Have indirect aspects such as the following considered?				

9.1	Supplier evaluation				
9.2	Subcontractors on site				
9.3	Transportation				
9.4	Products and service related impacts				
10	10. Have environmental aspects identified and evaluated for planned or new developments, or new or modified activities, products and services ?				

4.3.2 Legal and other requirements		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Has a procedure been developed and implemented to identify applicable regulatory, legal and other requirements?				
2	Are current copies of all applicable regulatory and other requirements accessible to personnel as necessary?				
3	Have all further agreements the organisation needs to fulfill been integrated in the procedure? Including:				
3.1	Business related agreements				
3.2	Agreements with public authorities				
3.3	Guideline other than legal requirements (e.g. company policy, industry codes and practices, etc.)				
4	Are the following licenses, permits and approvals available to demonstrate full legal compliance?				
4.1	Licenses of waste collectors				
4.2	Air emission permits				
4.3	Wastewater discharge permits				
4.4	Permits and licenses related to dangerous goods				
4.5	Environmental fees, e.g. wastewater discharge fee				
4.6	Registration at authorities (e.g. wastewater discharge, air emission inspection)				

4.3.3 Objectives, Targets and Programs		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have environmental objectives and targets been established at each relevant function and level in the organisation?				
2	Are objectives and targets documented?				
3	Are objectives and targets specific, measurable, concrete and understandable?				
4	Do the objectives and targets take into consideration the following?				
4.1	Compliance with relevant legislation and other requirements				
4.2	The significant environmental aspects				
4.3	The criteria for selection of adequate technology, financial operation and business requirements				
4.4	The views of interested parties				
5	Are the objectives and targets consistent with the following?				
5.1	Environmental policy				
5.2	The commitment for prevention of pollution				
5.3	The commitment for continual improvement of the environmental performance (where applicable)				
6	Has an environmental performance evaluation system been established to periodically review the achievement of the objectives and targets?				
7	Are evaluation criteria or meeting records available to determine what significant environmental aspects become objectives and targets?				
8	Have programs for the achievement of environmental objectives and targets been established and implemented?				
9	Have responsibilities been assigned for programs at each appropriate function and level?				
10	Do the programs include the following elements?				
10.1	Designation of responsibility for achieving objectives and targets at each relevant function and level of the organisation				
10.2	The means and time-frame by which the programs are to be achieved				
10.3	Are the programs, where appropriate, revised and amended to apply to new development, new or modified activities, products or services				

4.4 Implementation and Operation					
4.4.1 Resources, Roles, Responsibility and Authority		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Is an organisation chart available?				
2	Have responsibilities and authorities for environmental management been defined and documented?				
3	Has a management representative been assigned?				
4	Have the roles, responsibilities, and authorities for the Management Representative been defined?				
5	Are the required resources (e.g. personnel, technology, finance) for implementation and control of the environmental management system provided by management?				
6	Do the personnel appointed in environmental management roles have the required competence?				

4.4.2 Competence, Training and Awareness		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have training needs been identified?				
2	Are all personnel, whose work can cause significant environmental impacts, competent on the basis of education, training and or experience?				
3	Have procedures been established to assure all persons working for or on behalf of the company are aware of the Environmental Policy, actual and potential impacts and their responsibilities?				
4	Has the organisation ensured that personnel performing environmental specific tasks have the required knowledge (e.g. education, training experience)?				
5	Does the communication process ensure that business partners, suppliers and contractors are aware of the relevant requirements of the organisations Environmental Management System?				
6	Do the contractors working on site have the requisite knowledge and skills or have been trained to perform the work in an environmental responsible manner?				
7	Are training records, certificates and licenses available to demonstrate the competence?				

4.4.3 Communication		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Are procedures maintained for communication of environmental issues between various levels of the organisation?				
2	Are procedures maintained for receiving, documenting and responding to communications from external interested parties?				
3	Has the organisation recorded its policy and/or processes for external communications on its significant environmental aspects?				

4.4.4 Documentation		Verification / Evidence	Comments	Compliance Score	Recommended Action
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1	Have the core elements of the Environmental Management System and their interaction been described in paper or electronic form?				
2	Does the documentation of core Environmental Management System elements provide direction to related documentation?				
3	Are the following Environmental Management System documents documented :				
3.1	Environmental Policy				
3.2	Objectives and Targets				
3.3	Scope of the Environmental Management System				

4.4.5 Control of Documents		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Are procedures maintained to ensure periodic review and appropriate revision of all required documents?				
2	Are current versions of all required documents available at all essential locations?				
3	Are obsolete documents promptly removed or otherwise assured against unintended use?				
4	Is all documentation legible, readily retrievable and identifiable, and revision level or date identified?				
5	Have procedures been established for the creation modification and appropriate approval of the various types of documents?				

4.4.6 Operational Control		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Are activities associated with significant environmental aspects planned and carried out under specified conditions?				
2	Have documented procedures been established, implemented and maintained for operations associated with significant environmental aspects, policy, objectives and targets?				
3	Have, during development of the documented procedures, the following elements been considered?				
3.1	Activities where their absence could cause deviation from environmental policy, objectives and targets				
3.2	Stipulating operating criteria and limits for control of the important activity characteristics				
3.3	Control processes of significant environmental aspects of products and services				
3.4	Release of new or modified processes and products				

4	Have, during the development of the documented procedures, other indirect impacts considered?				
5	Have procedures been established relating to the significant environmental aspects of materials and services purchased and used by the organisation?				
6	Have procedures been established to communicate relevant procedures and/or requirements, regarding environmental aspects of purchased products or services, to suppliers and subcontractors?				

4.4.7 Emergency Preparedness and Response		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have processes been implemented to identify the potential for and respond to accidents and emergencies?				
2	Have processes been established to prevent and mitigate impacts of accidents and emergencies?				
3	Are emergency procedures / plans tested regularly?				
4	Are emergency plans available? Are procedures defined to ensure that environmental impacts of accidents and emergency situations are mitigated?				
5	Are responsibilities defined to review and revise, where necessary, the emergency preparedness and response procedures?				

4.5 Checking					
4.5.1 Monitoring and Measurement		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have procedures been documented and implemented to monitor key characteristics of operations that can have significant impacts?				
2	Have environmental performance indicators that relate to objectives and targets been established?				
3	Are records available to track performance and conformity with objectives and targets?				
4	Is all monitoring equipment appropriately maintained and calibrated?				

4.5.2 Evaluation of Compliance		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Are documented procedures established, implemented and maintained to regularly evaluate compliance with relevant environmental legislation and other requirements?				
2	Has monitoring and measuring data been recorded to evaluate the compliance with relevant environmental legislation and other requirements?				

4.5.3 Non-Conformity, Corrective Action and Preventative Action		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have procedures been established to define the responsibilities for handling, investigating, mitigating and controlling nonconformities?				
2	Are corrective and preventive actions timely, appropriate and effective?				

3	Are procedures changed and/or updated as a result of corrective or preventive actions?				
4	Does the procedure include the fact that complaints from interested parties are to be integrated in the process?				

4.5.4 Control of Records		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have procedures been implemented to identify maintenance and disposal of environmental records?				
2	Are environmental records legible, readily retrievable, protected against damage?				
3	Have retention times been specified?				
4	Do the records include the following:				
4.1	Training records				
4.2	Audit results				
4.3	Management review records				
4.4	Information on applicable environmental laws and other requirements				
4.5	Inspection, maintenance and calibration records				
4.6	Information on emergency preparedness and response				
4.7	Information on significant environmental aspects and associated impacts				
4.8	Permits				
4.9	Monitoring data				
4.10	Details of nonconformity, incidents, complaints and follow-up actions				
4.11	Contractors and suppliers records				
4.12	Process and product information				

4.5.5 Internal Audit		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Have internal audit procedures been developed and implemented?				

2	Are audit frequencies and topics based on the environmental importance of the activity concerned and the results of prior audits?				
3	Do audit procedures cover how results are reported and how results are provided to management?				
4	Do audit procedures adequately define scope, frequency, methods and responsibilities?				
5	Has the audit system been fully and effectively implemented?				
6	Do audit reports and records indicate a reliable system which can be used as a tool in the third party audit process?				
7	Are the auditors conducting the audits competent and in a position to conduct the audits objectively and impartially?				

4.6 Management Review		Verification / Evidence	Comments	Compliance Score	Recommended Action
1	Are regular scheduled management reviews undertaken to ensure the continuing suitability and effectiveness of the Environmental Management System?				
2	Does management review result in changes, as appropriate, to the policy and the objectives and targets?				
3	Are management review records retained?				
4	Are the reviews undertaken, based on the following documents or information?				
4.1	Audit results reports				
4.2	Evaluations of compliance with legal requirements and other requirements to which the company subscribes				
4.3	Achievement of environmental management system objectives and targets				
4.4	Communications and complaints from relevant interested parties				
4.5	The environmental performance of the organisation				
4.6	Status of corrective and preventive actions				
4.7	Follow-up actions from previous management reviews				
4.8	Changing circumstances, including developments in legal and other requirements related to its environmental aspects				
4.9	Recommendations for improvement				

Organisation

Last Updated:

ACTION PLAN								
Clause	Action Recommended (WHAT)	Planned Action (HOW)	Risk Priority	Person Responsible	Date action to be completed	Monitoring Review		
						Status of Action		Comments
4.1 General Requirements						Select	% Completed	
1								
2								

4.2 Environmental Policy						Select	% Completed	
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4.3.1 Environmental Aspects						Select	% Completed	
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4.3.2 Legal and Other Requirements						Select	% Completed	
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4.3.3 Objectives, Targets and Programs						Select	% Completed	
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4.4.1 Resources, Roles, Responsibility and Authority						Select	% Completed	
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4.4.2 Competence, Training and Awareness						Select	% Completed	
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4.4.3 Communication						Select	% Completed	
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4.4.4 Documentation						Select	% Completed	
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4.4.5 Control of Documents						Select	% Completed	
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4.4.6 Operational Control						Select	% Completed	
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4.4.7 Emergency Preparedness and Response						Select	% Completed	
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4.5.1 Monitoring and Measurement						Select	% Completed	
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4.5.2 Evaluation of Compliance						Select	% Completed	
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4.5.3 Non-Conformity, Corrective Action and Preventative Action						Select	% Completed	
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4.5.4 Control of Records						Select	% Completed	
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4.5.5 Internal Audit						Select	% Completed	
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4.6 Management Review						Select	% Completed	
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Disclaimer

This audit tool addresses the elements of the AS/NZS ISO 14001:2004 Environmental Management Systems. Compliance with this tool does not guarantee full compliance with all Environmental legislative requirements, nor that the PCBU is immune from enforcement action by state regulators.

The requirements mentioned in this tool (or otherwise inferred from the context) was current at the time of completion of the tool.

Any assessment report produced is intended for internal use only by the recipient, for the improvement of the Environmental Management System, and should not be used for any other purpose whatsoever or disseminated to any third party.


MAQOHSC Industry Support

MAQOHSC offers advice, assistance and support to South Australian mining and quarrying workplaces.

You can request our support via the MAQOHSC website www.maqohsc.sa.gov.au

You can complete the form below and email the form to maqohsc@sa.gov.au


Or telephone (08) 8204 9842.

**Mining & Quarrying**
OCCUPATIONAL HEALTH &
SAFETY COMMITTEE

Call us: (08) 8204 9842 [Contact us](#) [SEARCH](#) [MENU](#)

Contact MAQOHSC

We are committed to providing professional, high quality and efficient services that are responsive to our States industry requirements.



Contact details

Telephone: (08) 8204 9842
Email: maqohsc@sa.gov.au

Level 2
The Torrens Building
220 Victoria Square
Adelaide SA 5000

ABN: 61 394 689 085

Executive Officer
Leonie Caldarelli

Request our support

To request workplace assistance from one of our Work Health and Safety Specialists contact us.

Online
Complete the [Online work health and safety support request form](#)

Email
maqohsc@sa.gov.au

Telephone
(08) 8204 9842

Reach out to MAQOHSC, we're here to help.

Name

Organisation

Email address

**STAKEHOLDER**

Name of Business or Undertaking:	
Trading Name (if different from above):	
Address and Location:	

CONTACT DETAILS

Name of Primary Person:		Name of WHS Person:	
Telephone No:		Telephone No:	
Mobile:		Mobile:	
Email:		Email:	

REQUESTING THE FOLLOWING (please tick)

Audits and Inspections	Tick	Information Workshops	Tick
AS/NZS 4801:2001 Occupational Health and Safety Management System Audit		Work Health and Safety Obligations and Due Diligence (Officers)	
AS/NZS ISO 14001:2004 Environmental Management System Audit		Accident / Incident Investigation	
WHS Regulations Chapter 10, Mines - Gap Analysis		Work Health and Safety Responsibilities	
AS 1755:2000 Conveyor Inspection		WHS Awareness for Supervisors	
Area Inspections as required		Effective Consultation	
Assistance with / Development of	Tick	Communicate Information	
Work Health and Safety Management Systems		Principal Mining Hazards	
Policies and Procedures		Hazard Identification and Risk Management	
Plant / Task Risk Assessment		Hazardous Substances	
Standard Operating Procedures, Job Hazard Analysis, Safe Work Method Statements		Hazardous Manual Tasks / Musculoskeletal Disorders Prevention	
Emergency Response Plans		Basic Isolation and Lockout	
Work Health and Safety Mining and Quarrying Legislation		Work Health and Safety Legislation, Chapter 10 – Mines, Principal Mining Hazard	
Principal Mining Hazard Management Plans		Confined Space	
Traffic Management Plan		Personal Protective Equipment	
Injury Management		Dust in the Workplace	
Integration of Management Systems		Noise in the Workplace	
Training Needs Analysis			
Mentoring those with Safety Responsibilities			

SELECT A TIME FOR SUPPORT?

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec

PROVIDE A BRIEF DESCRIPTION OF SUPPORT REQUESTED

Once MAQOHSC has received a request for support, contact will be made shortly after.