



Safety Management Kit

for small-scale mines, quarries and extractive industry operations



A GUIDE TO SAFETY MANAGEMENT PLANS

ACKNOWLEDGEMENTS

The development of this kit would not have been possible without the contribution, assistance and support of the following people. In particular, the staff from Armidale office of the NSW **Department of Primary Industries, Mineral Resources** (DPI-MR) Angus McDouall and Craig Shelton (formerly of the DPI) as well as Mark Freeman, Ron Dillon, Mat Barnes and Debra Thompson (formerly of the DPI)

The Institute of Quarrying Australia, in particular Carl Berglin (chair), Darrel Adam (Education Officer) and Graham Terrey (member) of the Education Committee of The Institute.

The ultimate goal for all industry stakeholders is to be confident that mines, quarries and extractive industry operations can achieve zero harm and demonstrate to themselves, those who work with them and the community, that they have succeeded.

We hope your time and effort in applying this kit will help all of us reach that goal.

DISCLAIMER

The compilation of information contained in this document relies upon material and data derived from a number of third party sources and is intended as a guide only in devising risk and safety management systems for the working of mines and is not designed to replace or be used instead of an appropriately designed safety management plan for each individual mine. Users should rely on their own advice, skills and experience in applying risk and safety management systems in individual workplaces.

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The Kit

People get hurt when safety and health are not considered and managed adequately. They are not hurt by something on paper, but they are sometimes hurt if not prompted to think or if the journey is not well planned. A good journey needs to be planned and a complex journey needs to be written for everyone to understand his/her role.

This kit provides a structured way of considering and managing risks, and comes from a lot of experience across the mining, quarrying and extractive industry sectors. Haphazard or unplanned improvements are not good for safety and health. It is a common mistake to think that because you haven't had an accident for a long time that you have a safe operation. Thinking like that comes just before a disaster.

HOW TO USE THE SAFETY MANAGEMENT KIT

This Kit contains general advice as well as templates to assist you in developing a system and plan.

Templates include primary and secondary forms for your use.

Use the primary forms, but use only the secondary forms that you need for your site.

Do not be too ambitious – you will continue to develop and refine your plan as you go along. The important thing is to start – knowing that you will have help along the way, and you will get better with experience.

Both the government and the Institute are committed to providing additional assistance over the coming years. Please do not hesitate to call for help if you need it.

This Kit can be added to, as you refine your system and plan, with or without external help. There is room in this folder to hold more guidance related to your system and plan.

The primary motivation for this Kit is to save people from harm. It will also help you meet your legal obligations.

**TAKE A FEW MINUTES TO
READ THE FOLLOWING
INTRODUCTION**

What is this kit all about?

Welcome to the **Safety Management Kit**, a joint initiative of the **NSW Department of Primary Industries - Mineral Resources** (the Department) and **The Institute of Quarrying Australia** (the Institute). This is a national guide and is a general tool to help you to prepare a safety management plan for your mine, quarry or extractive industry operation – to prepare for the worst so it doesn't happen.

Australian mining/quarrying/extractive industry and general industry health and safety legislation requires (either specifically or in spirit) employers to have in place a means to:

- Identify all hazards in their mine that may be dangerous
- Assess the risks from these hazards or dangers
- Implement ways to remove or control risks
- Deal with incidents or emergencies
- Consult and communicate with people working at the site on health and safety matters.

This Safety Management Kit has been designed to help you prepare a basic safety system (called a “plan”) so you may also comply with the legislation.

Using this kit will help you and the persons who work at your site find the best way to systematically manage health and safety issues. The kit has two main processes that you will use to prepare your safety management plan. Risk management and document control. Risk management is a way that will help you to save your people and mates from harm – and it will also meet your duty under mining health and safety legislation to ensure your operation is safe.

The term **Safety Management Plan** (SMP) is used in this kit. This term includes all the activities that help you to manage health and safety risks. It includes actions to prevent injuries or illness from accidents, as well as plans or procedures that help to reduce the impact of injury or illness should an accident happen.

Using the kit will make the job of creating a safe and healthy mine/quarry/extractive industry operation easier to understand and easier to achieve.

Who can use the kit?

This kit has been developed with small-scale mines, quarries and extractive industries in mind. It recognises that finding and organising the resources for preparing a SMP can be difficult for a small-scale operation. It builds on the experiences of all mines, quarries and extractive industries sites and shares the lessons that have been hard won.

You can use this kit if:

- You have identified or want to identify hazards or dangers that may injure people working at your site and you want to manage these hazards and prevent accidents
- Your site has started working and you need to prepare a safety management plan
- Your site has a safety management plan but it is not working well or you want to do better
- You have some health and safety procedures in place but they are no longer useful because of changes at the site, such as less or more people, different equipment and machinery, or you are mining or processing in a different way
- You did not involve people who work at your site when you put safety management plans in place
- You now know that the mining/quarrying/extractive industry is using safety management plans to manage health and safety at all operations.

What is in the Safety Management Kit?

Overview

The kit has two essential parts that form the basis of the SMP. These parts allow you learn what is required and put in place activities at your site. They are:

Part 1: References and information about programs that make up a safety management plan

Part 2: A SMP template. This part includes information and activities that will form part or your whole SMP, depending on the size of your operation.

Additional (empty) sections have been included in this folder in anticipation that you receive extra guidance on risk management, on refining your SMP, and on specific topics or resources. This is an essential requirement for a system that grows with you.

What is the result?

When you and the people who work at your site have done all the activities in this kit you will have a SMP that is suited to your operation and addresses the hazards that you face.

The completed SMP is an active document. It will help you combine health and safety with all other work at your site. It may safeguard the operation from dangers and comply with health and safety legislation.

How to use the kit

This kit takes a “do-it-yourself” approach. You do not need occupational health and safety expertise. However, this kit does recognise that you have “experts”, that is, people at your site that may have worked for many years in the mining/quarrying/extractive industry.

Consultation and communication is the key to using this kit. People who work at the site must be involved in the preparation of the programs that make up the safety management plan. Good leadership is required on your part to achieve success and to get things happening and to keep things moving.

Part 1: Reference material and information

This part of the kit has information that may help you to prepare a safety management plan. It identifies what is expected, that is our industry standards, in the programs that make up the plan. The purpose of the reference material and

information is to “get you started”. It gives you a base from which you may seek more information from other sources.

The first part starts the process of preparing your SMP in a systematic way by:

1. Supplying information that explains responsibilities and roles of people who work at your operation.
2. Suggesting a set of health and safety responsibilities that help establish a risk management approach by identifying hazards, assessing what the outcome may be from these hazards and controlling the risks associated with these hazards.

To get the best result you must read the information supplied. You may wish to read each reference section prior to preparing the accompanying program in the SMP template.

Part 2: Safety Management Plan template

This will assist you in preparing your own SMP. This part of the kit requires you and people who work at your site to work through the programs and complete information as you go.

The purpose is to produce a safer operation, not to prepare a set of documents that sit in a folder in an office. It should be understood that the completion of the SMP template would provide a set of rules and procedures for managing health and safety at your site. However, it is not until you actually put it into practice that you will start to see the benefits of your efforts.

A CD has been supplied that includes the template and forms used. The CD also contains the General Workplace Inspection Checklist. You may wish to use these forms at your site or create your own (the forms can be adjusted for your operation). If you do not have a computer you can copy the forms that you need.

The SMP template is divided into programs to help you prepare your safety management plan. Each program includes:

1. Information (yellow pages called links) that will assist you in preparing the program and procedures that give effect to the program. The information is

further divided into sections that explain what is required (refer to the previous page) and actions (shown in *italics*).

2. SMP templates (white pages). This is the “do-it-yourself” section of each program. You prepare each program with people who work at your site by filling in the blank (_____) spaces with agreed information.

The template uses a site diary to support risk management and document control. Further information on the site diary can be found in *Attachment 1* that follows.

Definitions of words and terms have been included in *Attachment 2*. These will help you to understand mining, quarrying and extractive industry terms.

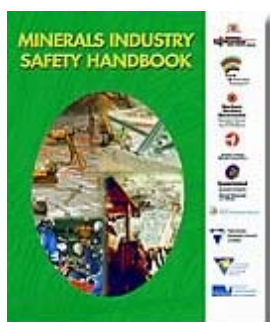
Attachment 3 is a Mine Safety Management Plan Assessment. If you want further encouragement or to assess the effectiveness of your Mine Safety Management Plan look at the questions included in this Attachment. While these questions are applicable to all sites, including large organizations, they are particularly applicable to small-scale operations.

Attachment 4 provides a basic relationship of legal requirements across all jurisdictions in Australia.

Hint: When you have completed each program you may wish to create a separate folder (or use the folder supplied) to keep all your documents in. The yellow pages and the Part 1: reference material can be removed and filed for reference according to the document control program you will prepare.

FURTHER INFORMATION

- **The Conference of Chief Inspectors' of Mines**
 - See <http://www.ga.gov.au/ccim/links.php> also individual States / Territories
 - WA <http://www.docep.wa.gov.au/ResourcesSafety/index.html>
 - NSW <http://www.minerals.nsw.gov.au/safety>
 - SA http://www.safework.sa.gov.au/show_page.jsp?id=1723
 - Tas <http://www.workcover.tas.gov.au/node/healthsafety.htm>
 - Qld http://www.nrm.qld.gov.au/mines/safety_health.html
 - Vic <http://www.dpi.vic.gov.au/dpi/nrenmp.nsf/childdocs/-3C916105586C1A4F4A256A800018DB03?open>
 - NT
http://kakadu.nt.gov.au/servlet/page?_pageid=157&_dad=portal30&_schema=PORTAL30&_type=site&_fsiteid=193&_fid=26344&_fnavbarid=26365&_fnavbarsiteid=193&_fedit=0&_fmode=2&_fdisplaymode=1&_fcalledfrom=1&_fdisplayurl=
 - PNG <http://www.mineral.gov.pg/>
 - NZ <http://www.osh.dol.govt.nz/law/hse-regs-ext.shtml>
- **NSW Department of Primary Industries (Mineral Resources) publications:**
Minerals Industry Safety Handbook (previous edition: *Guidelines for Safe Mining*)
 - see http://www.minerals.nsw.gov.au/prodServices/publications/mine_safety/safety/MineralsIndustrySafetyHandbook



Safety Management Plan – Workbook



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MDG 15 Guideline for Mobile Transport Equipment in Use in Mines
MDG 1010 Minerals Industry Safety & Health Risk Management Guideline 2006
Risk Management Pocket Guide
General Workplace Inspection Checklist

- **Standards Australia publications:**

Including Australian Standards, international standards and industry guides

AS 4360 Risk Management

AS/NZS 4801 Occupational health and safety management systems –
Specification with guidance for use

AS/NZS 4804 Occupational health and safety management systems – *General
guidelines on principles, systems and supporting techniques*

- **Useful website addresses:**

www.workcover.nsw.gov.au NSW WorkCover Authority

www.minerals.org.au Minerals Council of Australia

www.quarry.com.au Institute of Quarrying Australia

www.msha.gov USA Mine Safety & Health Administration

<http://www.mishc.uq.edu.au/> Minerals Industry Safety & Health Centre

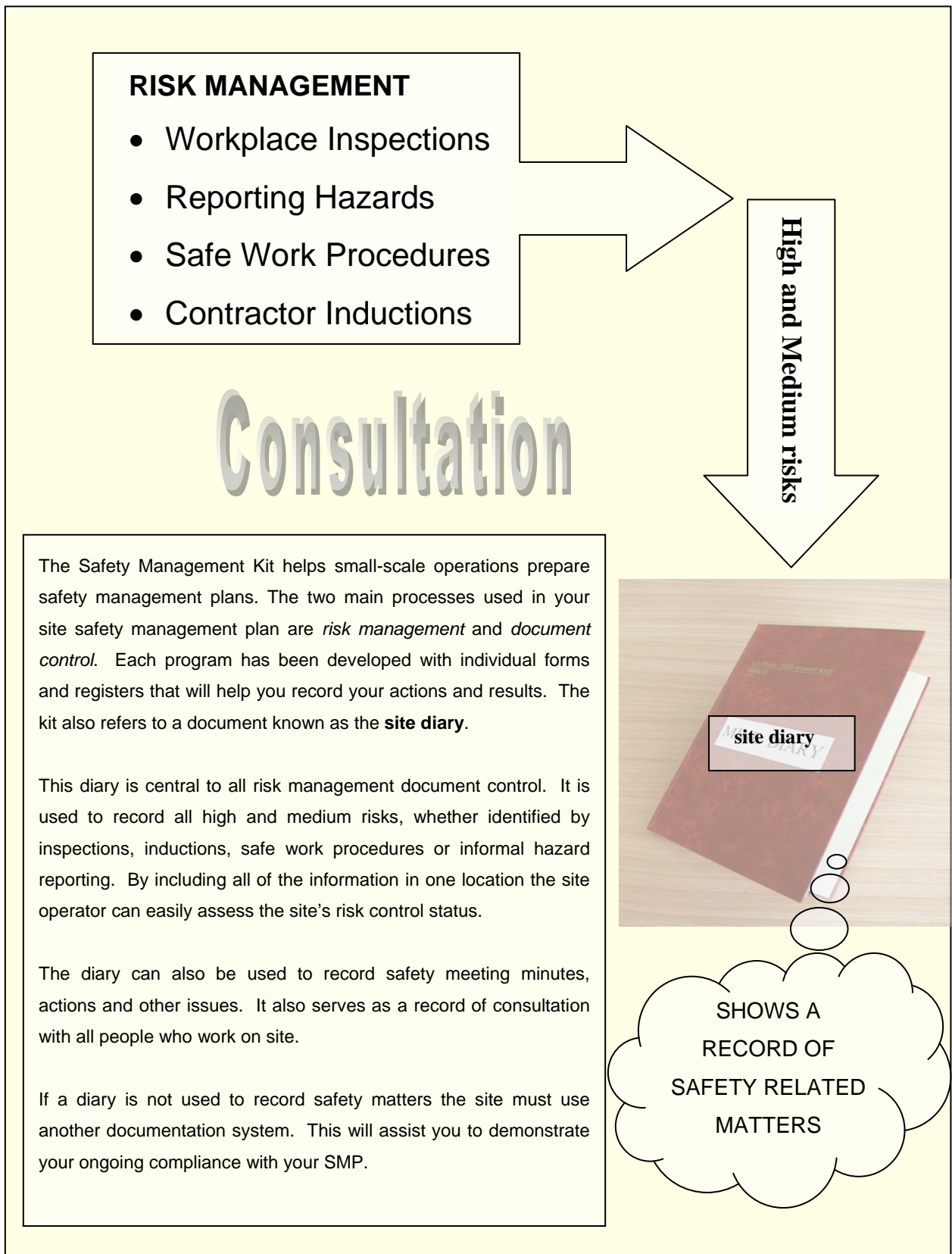
For any further information on any aspects of the Safety Management Kit, please contact your local Mines/Quarries regulator or the Institute. You might also visit our web sites at: www.dpi.nsw.gov.au or www.quarry.com.au . Publications are available from the NSW DPI Mine Safety website at:

http://www.dpi.nsw.gov.au/prodServices/publications/mine_safety/safety

YOUR CONTRIBUTIONS

The NSW Department of Primary Industries – Mineral Resources and The Institute of Quarrying Australia are seeking to improve the information contained in this publication. Your feedback, ideas and contributions will be considered in making the information in the next edition more applicable. Please refer to the Feedback Sheet at the end of this section.

Attachment 1: Mine/Quarry/Extractive Industry Site Diary



Attachment 2: Definitions

In this kit, unless otherwise stated:

Word	Means
Accident	A distinct event that causes injury or illness.
Checklist	A list of items for you to check.
Communication (Communicate)	To exchange or share health and safety information. This includes listening to the other person's point of view.
Company	An organisation, group or person(s) being the registered owner and/or operator of the mining, quarrying, extractive industry business.
Company representative	A person nominated by the company to represent it in health and safety matters.
Consequence	The outcome of an event, being a loss, injury or disadvantage.
Consultation	To seek the views of the people who work at the site and to have regard for their views for resolving health and safety matters.
Contractor	A person who is not an employee of the mine, who undertakes work at the mine.
Controls	An action taken that eliminates or minimises the adverse risk.
DPI-MR	The NSW safety and health regulatory agency.
Drill	A process of testing training that relates to emergency events that is repeated from time to time.
Emergency (emergency event, emergencies)	An event that is unplanned at a site. It is a situation that is not controlled and there is a threat to life or the health and safety of people at or outside the operation.

Word	Means
Employee (For the purposes of this kit)	A person who works at the site. May include, but not limited to employees, workers, contractors, sub contractors and consultants.
Equipment	Refer to machinery
Site Manager (SM)	The person nominated by the mine owner who is competent to hold that position.
Hazard	A source of potential harm or situation with potential to cause loss.
Hierarchy of controls	A graded order or priority of controls relating to the management of risk – from the most effective to the least effective control.
Inspection	To look or examine carefully for faults or defects.
Incident	Any unplanned event that results in, or has the potential to cause injury or illness, damage or loss.
Induction	A session or training that relates general health and safety information to working at the site. It will include advice on particular hazards at the operation and instruction relating to health and safety rules.
JSA Job safety analysis	An orderly way of breaking a job into logical steps and identifying the hazards, assessing the risk and putting in place controls for the risk.
Likelihood	Used as a description of probability of the hazard occurring.
Long term	A prolonged period of time. In risk control terms means a permanent control.
Machinery	Any device or item of plant, whether fixed or mobile (however powered) that is used to do work at the site or for the treatment of any product of the operation.

Word	Means
Mine	Any above ground or below ground site where exploration, extraction, quarrying or treatment activities are undertaken.
Mobile plant	Machinery that can be moved readily – such as haul trucks, loaders, graders, dozers, excavators, drills and crushing plants that are not fixed or used in a permanent capacity.
Monitor	To check, supervise, observe or record the progress of an activity or procedure on a regular basis in order to ensure it is being carried out.
MSDS	Material Safety Data Sheet
MSMP Mine Safety Management Plan, see also Safety Management Plan (SMP)	A system that manages occupational health and safety of persons who work at a mine/quarry/extractive industry operation. MSMP is a term that is widely used in New South Wales.
Near Miss	An event that has the potential to cause injury or illness if circumstances, such as the interval of time of the event, were different.
Objectives	Goals or targets that are to be achieved.
OHS (OH&S)	Occupational Health and Safety
Plan (also safety management plan)	A design, method or system for managing health and safety. Plans describe how the site health and safety targets will be achieved, including time-scales and persons responsible for implementing the OHS policy.
Policy (OHS Policy)	Statement by a site (or company) of its commitment, intentions and principles in relation to its overall health and safety performance.

Word	Means
PPE Personal protective equipment	Safety apparel, protective devices and equipment that protect the health and safety of persons.
Pre-start	A safety checklist that is undertaken prior to first use of machinery for that day or shift.
Probability	The likelihood of a specific event or outcome.
Procedure	A set of instructions, rules or a step-by-step description of what's to be done and by whom.
Production Manager (PM)	Person who supervises the production operations at the mine and is a person who is qualified to be a production manager. This is a term widely used in New South Wales.
Program	Grouping of various activities that will manage a particular function or hazard at a mine. These groupings of the site's activities are called programs.
Review	Checking to see that what you set out to achieve has happened and what needs to be done if there are any gaps.
Risk	The chance of something happening that will have an impact on the health and safety aims of the mine. Risk is measured in terms of consequence and likelihood.
Risk assessment	The overall process of analysing and evaluating risk.
Risk control	Refer to controls
Risk management	The culture, processes and structures that are directed towards the effective management of potential injury, illness, damage or loss.
Risk rating	The level or risk assigned following risk assessment (e.g. high, medium, low)
RTW	Return to work.

Word	Means
Serious injury	An injury that is defined in the relevant legislation.
Short term	A period of time that is not prolonged. In risk control terms means a temporary control or a control that is actioned to prevent a potential accident.
Site	A place of work where mining and associated activities are carried out.
SMP Safety management plan	The plan for the site to improve its safety and health performance.
Supervisor	A person who has the responsibility for persons who work at the site or part of the operation that oversees the activities undertaken – includes persons who act in such a position.
SWL Safe work limit	Safe work limit. Applies to lifting equipment and machinery and is the maximum load that should be applied to the equipment.
SWP Safe work procedure SWMS Safe Work Method Statement	Is a written instruction that sets out how an activity is to be undertaken at a mine. It can be used for training or observing activities for monitoring or review. Also known as: <ul style="list-style-type: none"> • Safe Work Method Statement & JSA • Standard Operating Procedure • Work Method Statement.
Yearly safety plan	A schedule of health and safety activities that are to be undertaken for the year.

Attachment 3: Mine Safety Management Plan Assessment

(the following pages are for each jurisdiction (State/Territory) or the Institute to include any guidance to help sites/organizations check progress or development of Safety Management Plans / Systems for safety & health (S&H) on your site)

Attachment 4: Australian expectations

Caution: legislative provisions are constantly changing so the following outline is provided for indicative purposes only. Please refer to individual jurisdictional requirements, for example via the websites of the respective members of the Conference of Chief Inspectors' of Mines or via your local regulatory agency.

1. New South Wales: sites and organizations are expected under general OHS legislation to have safe systems, and are expected, under mine safety legislation, to have safety management policies, plans and programs for safety and health. These expectations apply to sites irrespective of size or scale of operation.
2. Queensland: all mines are expected, under mine safety and health legislation to have a safety and health system that is documented and contains certain features.
3. Victoria: all mines and extractive industries are expected to have safety management systems. Guidance is provided.
4. Northern Territory: mines are expected to have a mining management plan.
5. Western Australia, South Australia and Tasmania: all mines are expected to manage their risks effectively.

Feedback Sheet

Your comments will be very helpful in reviewing and improving this Safety Management Kit. Please copy and complete the Feedback Sheet and return it to:

Communication and Education Officer

Mine Safety Performance

NSW Department of Primary Industries

PO Box 344 Hunter Region Mail Centre NSW 2310

Fax: (02) 4931 6790

or

Education Officer

The Institute of Quarrying Australia

PO Box 51 Blakehurst NSW 2221

Fax: (02) 9484 0766

How did you use, or intend to use, this document?

What do you find most useful about this document?

What do you find least useful?

Do you have any suggested changes to the document?

Thank you for completing and returning this Feedback Sheet.