

RECENT CHANGES TO MINE SAFETY LEGISLATION

MINES INSPECTION ACT - GENERAL RULE 2000

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Paper Summary

Regulatory control of mine safety in NSW, follows the model proposed by the Robens Committee, UK. This model imposes a “duty of care” on persons or entities having control of workplaces. Performance outcomes are specified and a systematic framework is set down, within which appropriate (best) practices may be applied. Procedure and standards are minimised in legislation, but are applied by calling up Australian and International Standards, Codes of Practice and Industry Guidelines.

The responsibility of industry and Mineral Resources NSW Safety Operations Unit with respect to enforcement of health and safety standards in mines, investigation, assessment and sanctions and prosecution are outlined.

The approach to improvement in safety education standards in small mines, through the Mineral Resources NSW Small Mines Campaign, relates the practice of putting duty of care to work.

Introduction

LEGAL ISSUES AND “DUTY OF CARE” IMPLICATIONS

Safety Legislation in the Mining Industry

- broadly follows the model proposed by the Robens Committee, UK
- principal Act
- subordinate legislation (Regulations) and
- Codes of Practice

Acts

- employers’ “General Duty of Care”,
- general administrative matters
- workplace consultation mechanisms
- enforcement and inspectorial matters
- exemptions, and
- penalties
- define the general rights and obligations of all parties involved with managing risks at a workplace

- codification of the common law duty to establish measures for the prevention of workplace accidents and incidents in so far as is reasonably practicable

Subordinate legislation

- administrative standards
- hazard control specific standards
- exposure standards
- process or risk management standards
- covering plant, equipment, methods of production etc
- for reporting, documenting, licensing or registering noise, vibration, hazardous substances

Codes of Practice, Guidelines and Guidance Notes

- Additional information on methods of complying with requirements of the principal Act or subordinate legislation.
- Where approved, they have 'deemed to comply' or evidentiary legislative status.
- Operators who follow the Code are deemed to comply with the legislation.
- An operator can depart from the Code provided they establish alternate arrangements that meet the legislative standard.
- Non-approved guidelines and guidance notes are mostly regarded as sources of information and have no legislative standing.

RESPONSIBILITY OF INDUSTRY

Occupational Health & Safety Act 2000

- Occupational Health & Safety legislation includes Occupational Health & Safety Act 2000 and associated OH&S legislation
 - Coal Mines Regulation Act 1982
 - Dangerous Goods Act 1975
 - Mines Inspection Act 1901
 - Rural Workers Accommodation Act 1969
- OH&S Legislation includes the primary Act and associated legislation
- This may mean that certain sections of the primary Act and Regulations do not apply as this is covered by the associated legislation. This is the case with the OH&S Act and NSW mining Acts. The sections of OH&S 2000 that do not apply to CMRA & MIA are stated in this act at the division or section not applying.
- OH&S Act 2000 and regulations came into effect September 2001.

Part 2, Division 1 General Duties

s.8

(1) Every employer shall ensure the health, safety and welfare at work of all the employer's employees

Extends (without limitation)

- (a) any premises controlled by the employer,
 - (b) plant or substances are safe
 - (c) systems and environment are safe
 - (d) providing necessary information, instruction, training and supervision
 - (e) providing adequate facilities for welfare at work
- (2) other people are not exposed to health and safety risks due to the employers operations

s.9

Employers and self-employed persons to ensure health and safety of persons other than employees at places of work.

s.10

Persons in control of premises used by people as a place of work must ensure they are safe and without risks to health.

Each person who has control of a place of work or any plant or substance provided for the use or operation of persons at work to ensure health and safety.

s.11

Designers, manufacturers and suppliers to ensure health and safety as regards plant and substances for use at work.

s.20

Employees at work to take reasonable care of others and cooperate with employer

s.110

The onus of proving the person had a reasonable excuse lies with the defendant. It shall be a defence to any proceedings against a person for an offence against the Act or the regulations the breach of which constituted the offence, or the commission of the offence was due to causes over which the person had no control and against the happening of which it was impractical for the person to make provision.

DUTY OF EMPLOYER TO CONSULT

Nature of consultation

- sharing of relevant information , and
- employees are given the opportunity to express their views and to contribute , and

- the views of employees are valued and taken into account
- consultation is defined in s.13, 14 15 16, 17, 18 and 19 OH&S Act 2000 and aimed at
 - discussion about occupational health, safety and welfare with employees, and
 - carried out in a timely fashion to the resolution of occupational health, safety and welfare issues at their place of work
 - establishment of OHS Committees

RESPONSIBILITY OF DMR SAFETY OPERATIONS UNIT

- actively encourage mines to meet community expectations
- assist industry to achieve significantly continuing improvement in safety & health performance
- introduce new legislation and increased flexibility for operations with increased accountability
- embed stakeholder duty of care and systematic risk management
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- coordinate improvement of standards
- monitor currency and comprehensiveness of industry standards
- determine compliance with agreed standards
- make clear that unacceptable levels of performance are not allowable
- take appropriate enforcement action

RECENT CHANGES TO MINES INSPECTION ACT &

GENERAL RULE 2000

History of the General Rule

Prescription - pre 1994

General Rule 1994

Introduced the concept of "Duty of Care", performance based outcomes and the due diligence approach.

MIA changes 1999

Introduction of General Manager's role of overall responsibility.

General Rule 2000

Mine Safety Management Plans

Implemented on 1st Sept 2000.

The rule was developed with Industry stakeholder involvement.

Replicates most of GR 1994, along with significant new requirements;

Contractors

Clause 11

Contractors and sub - contractors to have their own approved safety and health system or be subject to the mine system

Risk Assessment Controls

Clause 19

Introduction of the risk assessment approach has been reinforced

When dealing with risk throughout the General Rule, the standard hierarchy of controls should apply

Major Hazard Management

Clause 20

A mine must establish a hazard management procedure for any foreseeable hazard that may result in a "dangerous incident"

Safety Inspection & Checks

Clause 24

All mines require a planned regular inspection program to identify hazards

Communication

Clause 24 & 28

Mines are required to measure, monitor, evaluate and communicate safety and health performance

Fitness for work

Clause 31

Every mine must develop, in consultation with employees, a 'fitness' for work procedure, including fatigue, alcohol and drug measures

International Labor Organisation Conventions (ILO)

GR 2000 incorporates requirements of the ILO, including :

clause 43 - Noise Management,

clause 51-58 - Hazardous substances (increased awareness),

clause 48 (5) - Asbestos material,

clause 38 - Vibration

Mine Safety Management Plans Policy

All mines are required to develop occupational safety and health policies

All mines are required to have a formalised Mine Safety Management Plans

Institute of Quarrying Handbook

How to develop a mine safety management plan.

The Institute of Quarrying Handbook and the Mineral Resources NSW Small Mines Workshop show operators how to develop a practical Mine Safety management Plan step by step.

Over 300 operations in NSW have attended the workshops during the last two years and found that the legislative requirements can be met and help to organise better operations and safety.

SAFETY EDUCATION IN SMALL MINES:

THE NSW SMALL MINE CAMPAIGN PUTTING DUTY OF CARE TO WORK

NSW Legislation – A Safety Systems Overview

As part of legislative changes taking effect in September 2001, all small mines in NSW (defined as those with less than five employees) will be required to have prepared a Safety Management Plan. For a large number of small mines this is a new challenge.

Originally, the Mines Inspection Act - General Rule 2000 required only mines with five or more employees to have implemented a Mine Safety Management program. Compliance with this legislation has been the focus of the 'Verification Program' - introduced when General Rule 1994 first became law in NSW. The Verification Program is not covered by the scope of this paper¹.

Historically, an increasingly more detailed trend in regulatory reform did not show a corresponding inverse trend in the number of people seriously injured or killed at work in mines. New South Wales was no exception to this.

The mining industry must be able to demonstrate responsibility for the health and safety of all persons on mine sites by way of duty of care. To be more effective within a positive organisational culture, establishment of systems of work to support the safety improvement process must be a stakeholder responsibility.

The concepts, which underpin 'duty of care', are well established in the Australian minerals industry. However, Safety Operations officers are often reminded during assessments of mining operations, and through investigations into incidents and accidents, of the need to translate these concepts into practical safety systems. To be effective, these systems must not only be relevant to the mine site but also be part of the normal way of doing business for the entire workforce.

The Small Mines Campaign is providing education and hands on assistance to enable small mines in NSW to understand and commence the implementation of a systematic approach to safety. This is consistent with the duty of care and due diligence philosophies. In effect, putting duty of care to work.

Ten years ago the NSW Department of Mineral Resources launched a program designed specifically for the opal sector. It is believed that this program has demonstrated the value of an educative component of Safety Operations' officers' roles. It is also believed that any benefits should be extended to the wider small mine sector.

¹ 'Be Aware. Be Safe' – A series of mine safety booklets to understand and implement the General Rule 1994

The Small Mines Campaign

Small mines have a disproportionately high rate of fatalities when compared with the non-coal mining industry in general. There have been 13 fatalities in NSW small mines in the past 10 years - the same number as in all the remaining metalliferous mines, some of which employ several hundred people.

Most of the State's 800 plus quarries, exploration sites, clay pits, salt evaporation sites, local council operations and borrow pits are classified as a 'mine' under the Mines Inspection Act 1901. Operations range from those utilising sophisticated mobile equipment and fixed plant to 'father and son' businesses mining and stockpiling sand on a part time basis.

In the past, small mines have generally been found to face particular hurdles in achieving safety improvements: shortages of suitably qualified supervision, impacts from geographical isolation, inadequate communication, misguided attitudes towards safety management, a restrictive shortage of resources to support safety improvement and a lack of understanding of the negative commercial impact of poor safety performance. Also, ignorance of legislative imperatives is often a common factor.

The Small Mines Campaign is not only an example of the implementation of DMR strategies directed towards compliance with legislation, but also an opportunity for Safety Operations officers to directly influence how small mines approach safety in a practical and real way. That is, putting duty of care to work.

The objectives of the Small Mines Campaign include: -

- The location and identification of all small mines in the State.

- The significant improvement of mine owners', production managers'² and mine employees' awareness of their statutory obligations.
- The provision of a structured education program in the development, implementation and continuous improvement of safety management systems with particular focus on hazard identification and risk management.
- Proactive work with program participants and employees at the mine site to provide coaching in, and evaluation of, Mine Safety Management Plans.

Campaign Structure and Content

The Small Mines Campaign consists of a number of programs running concurrently across NSW. Industry is invited to attend regional workshops. Each program involves two interactive workshops of one and a half and one day duration respectively, each attended by up to 20 participating mines. The two workshops are scheduled approximately three month apart. Next, two one day visits are made to each mine site by a Safety Operations officer, a month or so after each workshop.

To date, workshops have been conducted in Orange, Wagga Wagga, Lismore, Tamworth, Raymond Terrace, Wollongong, Broken Hill and Cobar.

The content and structure of the workshops is centred on the 'Mine Safety Management Plan – Workbook' - a combined Institute of Quarrying Australia / Department of Mineral Resources initiative. This publication is rapidly becoming an industry standard

² Ref Mines Inspection Act 1901 No 75 Sections 5B & 8 - Production Manager

for the development and implementation of Mine Safety Management Plans. It not only provides a structured, plain English explanation of the process of developing safety management plans, but it also includes pro forma documentation and examples of it's use.

The Safety Management Plan Workbook is complemented by the 'Guidelines for Safe Mining' publication. It is also compliant with AS 4801 - Occupational Health and Safety Management Systems.

Both DMR publications are available for purchase from any NSW Department of Mineral Resources office.

Program topics included in the Small Mines Campaign are: -

Safety Management Plan Overview

Policy

Document Control

Hazard Identification

Risk Assessment

Workplace Inspections

Job Safety Analysis

Safe Work Procedures

Emergency Response Planning

Maintenance Programs

Work Environment

Accident and Incident reporting

Contractor Management

Training and Development

Fitness for Work

Although these topics are not a comprehensive coverage of all of the programs included in the Safety

Management Plan - Workbook, they have been chosen on a risk assessment basis by Safety Operations officers as those with the greatest potential to establish effective Mine Safety Management Plans. Also, it is realised that for some managers and owners of small mines, the workshop duration could become unacceptably onerous and therefore lose impact.

Role of Safety Operations officers

All of the presentation material and supporting documentation for the workshops has been developed in-house by Safety Operations officers. The enthusiasm demonstrated and quality outcomes achieved during the early implementation stages cannot go without acknowledgment. Although officers' time has been spread amongst some of the small mines in previous years, for the first time many were afforded the opportunity to both create and utilise specific tools to influence safety culture.

Perhaps the planned site visits are the best example of where Safety Operations officers have been required to take on the role of 'mentors' - very much a changed role in the eyes of many small mine operators.

Each of the two one-day visits to participating mine sites is carefully structured to involve both management and employees. This involves discussion on duty of care and due diligence as well as reviewing progress on preparation of their Safety Management Plan. Also, officers are able to demonstrate safety systems that are relevant to, and are designed to meet, specific hazards identified at that particular mine site. This is achieved by conducting hazard identification, risk assessment and job safety analysis with the active participation of mine personnel. Again, an opportunity to put duty of care to work.

Program Measurement

A system of monitoring progress and measuring outcomes and has been established for each topic within the Small Mines Campaign program.

This has been achieved through the utilisation of the Safety Operations Group's COMET (COmmon Mines Environment) database. This comprehensive database mirrors legislative reporting requirements as well as recording mine particulars and details of officers' general activities. Fields have been established in the database for officers to input outcomes of site assessments following each one day visit.

Output from the COMET database not only provides positive performance measures in a status report on progress achieved in the development of Mine Safety Management Plans but will also provide fundamental input into the establishment of future small mine strategies by the Department.

Small Mines Outside the current Campaign

Additional Government funding has been made available in recent years to complete a number of key strategic and administrative priorities in the NSW Department of Mineral Resources. The Small Mines Campaign is one such priority. From the outset, it was realised that the Safety Operations Group did not have sufficient resources to include every NSW small mine in a program.

However, it has been fortunate that in most areas of the State, the majority of respondents to the Department's advertising have been accommodated.

In recognising the potential for a shortfall, and consistent with the Department's Strategic Plan, significant progress has been achieved in encouraging third parties to work with small mines in developing their Mine Safety Management Plans. Also, other influences such as the inclusion by

mines and local Councils of the requirement for a Mine Safety Management Plan in contract tender invitations and local Council Development Approvals for quarries is having a positive effect.

In particular, the voluntary work by a number of industry mentors with peers in the industry has been invaluable. They have been able to demonstrate effective utilisation of their own safety management plans and, therefore, are able to pass on practical knowledge and learning. Also, some small mines and local councils have pooled resources and engaged consultants to work with them. Networking between mines is also encouraged to supplement the increasing number of enquires directed to Safety Operations officers.

Response from Industry

Like any effective education program, the content, format, and delivery of the Small Mines Campaign has been revised from time to time in response to feedback from participants as well as evaluation by presenters.

It would be fictitious to state that all program participants have responded by systematically implementing effective safety management plans in their mines. It is unfortunate that the achievement of safe production through the application of systematic safety management techniques appears difficult for some operators who may well 'file' this new legislation firmly into the 'too hard basket'. However, in doing so they may well be in breach of legislation.

Despite this, the predominant response from mine owners and managers who have attended workshops in the Small Mines Program is extremely positive. The mentoring role of Department officers and their preparedness to work

proactively with mines is recognised and has been particularly appreciated³.

Program has been the motivation in the preparing this paper.

Conclusion

The current programs of workshops and site visits are scheduled for completion in most areas of the State by mid August 2001.

With the impending legislative requirement for small mines to prepare a Mine Safety Management Plan, the Department's focus will be on an assessment of compliance. This will be achieved initially through a statewide response to a self-assessment questionnaire by all small mines. This will be similar in structure to the current site assessment. Results will be monitored through the COMET database.

Analysis of the results of the self-assessment will help identify priorities for future work in the small mines sector.

A reduction in mining injuries and fatal accidents is expected.

References

Acknowledgments

- The authors wish to thank the NSW Department of Mineral Resources, Safety Operations Group for the opportunity to present this paper.
- The significant contribution that Safety Operations officers are making to the small mining sector in their understanding and implementation of outcomes focussed legislation is acknowledged.
- The positive response by the minerals industry to the Small Mines

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³ NSW Department of Mineral Mine safety News - July 2001, page5

Author Biography

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Committees

Member Mine Safety Council, NSW

Chairman Coal Safety Advisory Committee

Metalliferous Safety Advisory Committee

Extractive Industry Safety Advisory Committee

Coal Mine Qualifications Board

Above and Below Ground Board of Examiners

Shotfirers Board of Examiners

Member Mine Subsidence Board

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Qualifications

First, Second and Third Class Certificates of Competency to be a Manager, undermanager and deputy in NSW coal mines,. First Class Certificate of Competency (by Mutual Recognition Act) to be a Manager in Queensland Coal Mines. Certificate of Competency to be a Mines Rescue Brigadesman.

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Bachelor of Engineering, Mining, First Class Honours University of New South Wales 1977

Part-time/Full-time work and university study 1972 - 1976

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